APPENDIX B:

AIR QUALITY IMPACT ANALYSIS

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DRAFT

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GENERAL PLAN LAND USE AND URBAN DESIGN ELEMENTS PROJECT

CITY OF LONG BEACH, CALIFORNIA

LSA

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AIR QUALITY IMPACT ANALYSIS

GENERAL PLAN LAND USE AND URBAN DESIGN ELEMENTS PROJECT

CITY OF LONG BEACH, CALIFORNIA

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TABLE OF CONTENTS

APPENDICES

FIGURES AND TABLES

FIGURES

TABLES

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LIST OF ABBREVIATIONS AND ACRONYMS

1992 CO Plan	1992 Federal Attainment Plan for Carbon Monoxide
°C	degrees Celsius
°F	degrees Fahrenheit
µg/m^3	micrograms per cubic meter
AAQS	ambient air quality standards
AB	Assembly Bill
ABAU	adjusted business-as-usual
ADT	average daily trips
afy	acre-feet per year
AQIA	Air Quality Impact Analysis
AQMP	Air Quality Management Plan
BAAQMD	Bay Area Air Quality Management District
Basin	South Coast Air Basin
BAU	business-as-usual
BC	Black Carbon
BMPs	Best Management Practices
C_2F_6	hexafluoromethane
CAA	Clean Air Act
CAAQS	California ambient air quality standards
CAFÉ	Corporate Average Fuel Economy
CalEPA	California Environmental Protection Agency
CALGreen	California Green Building Standards

CARB	California Air Resources Board
CARB Handbook	California Air Resources Board Air Quality and Land Use Handbook
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CAT	Climate Action Team
CCAA	California Clean Air Act
CCR	California Code of Regulations
CCST	California Council on Science and Technology
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CF_6	tetrafluoromethane
CH4	methane
City	City of Long Beach
CNG	compressed natural gas
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CPUC	California Public Utilities Commission
DPM	diesel particulate matter
EO	Executive Order
FHWA	Federal Highway Administration
ft	foot/feet
GHG	greenhouse gas

GPS	global positioning system
GWP	Global Warming Potential
HFCs	hydrofluorocarbons
HRA	Health Risk Assessment
I-405	Interstate 405
I-710	Interstate 710
IPCC	Intergovernmental Panel on Climate Change
LCFS	Low Carbon Fuel Standard
LGOP	Local Government Operations Protocol
LOS	level of service
LSA	LSA Associates, Inc.
LST	localized significance threshold
LUE	Land Use Element
LUE/UDE	Land Use Element/Urban Design Element
MATES	Multiple Air Toxics Exposure Study
MMLOS	Multimodal Level of Service
MMT	million metric tons
MOG	Mobility of Goods
MOP	Mobility of People
mpg	miles per gallon
mph	miles per hour
MPO	Metropolitan Planning Organization
MT	metric tons
MT CO_2e/yr	metric tons of carbon dioxide equivalent per year

MT CO_2e/yr/SP	metric tons of carbon dioxide equivalent per year per service population
MWh	megawatt hours
MWh/yr	megawatt hours per year
N/A	Not applicable
N_2O	nitrous oxide
NAAQS	national ambient air quality standards
NHTSA	National Highway Traffic Safety Administration
NO_2	nitrogen dioxide
NO_X	nitrogen oxides
O_3	Ozone
OEHHA	California Office of Environmental Health Hazard Assessment
OPR	Office of Planning and Research
Pb	lead
PFCs	perfluorocarbons
PM	particulate matter
PM_{10}	particulate matter less than 10 microns in size
$PM_{2.5}$	particulate matter less than 2.5 microns in size
ppb	parts per billion
ppm	parts per million
PRC	Public Resources Code
RCP	Regional Comprehensive Plan
ROCs	reactive organic compounds
ROGs	reactive organic gases
RPS	Renewable Portfolio Standard

RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAP	Sustainable City Action Plan
SCAQMD	South Coast Air Quality Management District
SCS	Sustainable Communities Strategy
SELAC	Southeast Los Angeles County
SF_6	sulfur hexafluoride
SIP	State Implementation Plan
SO_2	sulfur dioxide
SoCal Gas	Southern California Gas Company
SO_X	sulfur oxides
SP	service population
SRE	Scenic Routes Element
TAC	toxic air contaminant
TAZ	Traffic Analysis Zones
T-BACTs	best available control technologies for toxics
TDM	transportation demand management
TIA	Traffic Impact Analysis
TOD	transit-oriented development
tpd	tons per day
UDE	Urban Design Element
USEPA	United States Environmental Protection Agency

UWMP	Urban Water Management Plan
VMT	vehicle miles traveled
VOCs	volatile organic compounds
Working Group	GHG CEQA Significance Threshold Working Group
WRCC	Western Regional Climate Center

AIR QUALITY IMPACT ANALYSIS

INTRODUCTION

LSA has completed an Air Quality Impact Analysis (AQIA) for the proposed General Plan Land Use and Urban Design Elements (proposed project) in the City of Long Beach (City) in the County of Los Angeles. Figure 1 shows the project location and a detailed vicinity map.

This AQIA has been prepared using methods and assumptions recommended in the CEQA Air Quality Handbook of the South Coast Air Quality Management District (SCAQMD). In keeping with these guidelines, this analysis describes existing air quality and potential impacts generated by the implementation of the proposed project related to generated criteria air pollutants and greenhouse gas (GHG) emissions. Mitigation measures to reduce or eliminate significant air quality impacts are identified, where appropriate.

PROJECT DESCRIPTION

As illustrated by Figure 1, Project Location, the City (also referred to as the "planning area") includes the entire 50 square miles within the limits of the City of Long Beach (excluding the City of Signal Hill, which is completely surrounded by the City of Long Beach) in Los Angeles County (County), California. The City is bordered on the west by the Cities of Carson and Los Angeles (including Wilmington and the Port of Los Angeles); on the north by the Cities of Compton, Paramount, and Bellflower, and the unincorporated community of Rancho Dominguez; and on the east by the Cities of Lakewood, Hawaiian Gardens, Cypress, Los Alamitos, and Seal Beach, and the unincorporated community of Rossmoor. The Pacific Ocean borders the southern portion of the City, and as such, portions of the City are located within the California Coastal Zone.

The proposed project is an update to the City's existing General Plan and is intended to guide growth and future development through the horizon year 2040. While the existing General Plan does not currently include an Urban Design Element (UDE), the existing Scenic Routes Element (1975) (SRE) designates roadways within the City for which view protection should be considered and also establishes varying design standards to ensure the continued maintenance of the aesthetic character of these roadways. The proposed project includes the approval of both the General Plan Land Use Element (LUE) and Urban Design Element (UDE), which would replace the existing LUE and SRE. The following discussion summarizes the key components of each of the proposed General Plan Elements.

Land Use Element

The proposed updated LUE would include nine distinct Community Plan Areas, comprised of the following: (1) North Long Beach; (2) Bixby Knolls; (3) Westside and Wrigley; (4) Eastside; (5) Central; (6) Traffic Circle; (7) Downtown; (8) Midshore; and (9) Southeast. While there are over 70 neighborhoods identified by residents of the City, the community plan areas are defined by strong physical boundaries such as freeways, rivers, city boundaries, and railroad tracks. For each Community Plan Area, the proposed LUE provides a description of its geographic context, outlines issues and needs unique to the area, and establishes neighborhood-specific land use strategies.

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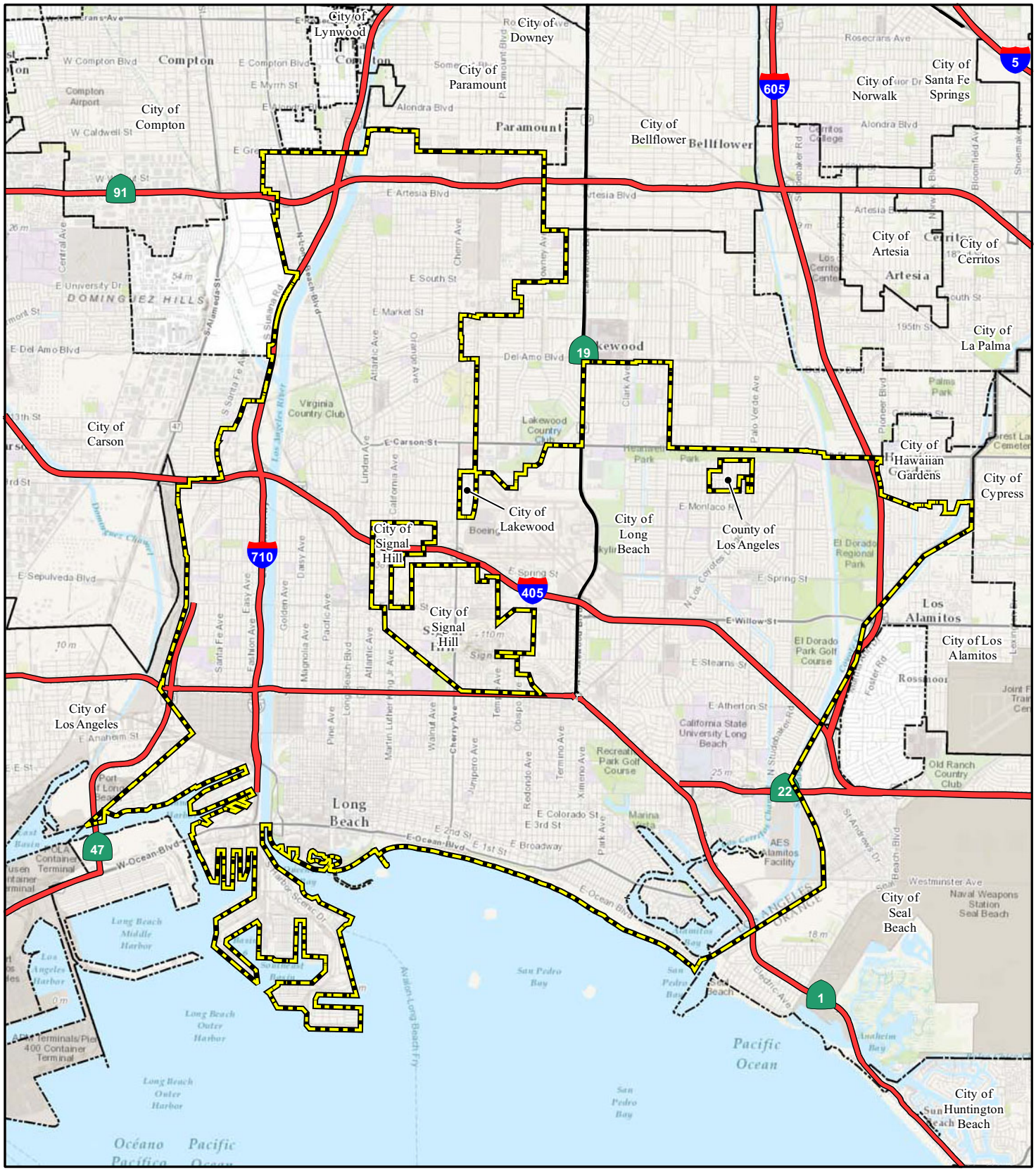

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LEGEND

Project Area (City of Long Beach)

FIGURE 1

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MILES

SOURCE: Bing Maps (c. 2008); ESRI (2008)

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Long Beach General Plan
Land Use and Urban Design Elements

Project Location

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In addition to establishing Community Plan Areas, the proposed updated LUE would introduce the concept of "PlaceTypes," which would replace the current approach in the existing LUE of segregating property within the City through traditional land use designations and zoning classifications. The updated LUE would establish 14 primary PlaceTypes that would divide the City into distinct neighborhoods, thus allowing for greater flexibility and a mix of compatible land uses within these areas. Each PlaceType would be defined by unique land use, form, and character-defining goals, policies, and implementation strategies tailored specifically to the particular application of that PlaceType within the City. The PlaceTypes are shown in Figure 2.

The new LUE would reflect the current needs and opportunities within the City, update land uses and bring the General Plan into conformity with the City's adopted General Plan Mobility Element (October 2013). The project would also provide for future development opportunities that would alleviate overcrowding documented in the City's Assessment of Fair Housing, and would accommodate projected growth and housing needs established in the City's General Plan 2013–2021 Housing Element and the 2016–2040 SCAG RTP/SCS.

The proposed LUE would allow for the opportunity for major changes to approximately 13 percent of the City. These areas are referred to as "Major Areas of Change" throughout the LUE and signify areas where growth is anticipated to be most profound. However, areas that are not designated as "Major Areas of Change" and/or are not anticipated to result in changes in existing land use patterns may also experience demographic growth.

In establishing PlaceTypes and focusing new development within the Major Areas of Change, the proposed LUE takes into account existing land use patterns in the City, adopted land use plans, and the demand for new land uses and increased densities to alleviate overcrowding of existing residences and accommodate the projected population growth. The proposed LUE also considers the location of undeveloped or underutilized parcels that are best suited for future development and accounts for which types of land uses and infrastructure would be required to serve new development facilitated by the new PlaceType categories. While the proposed LUE would provide for new development opportunities, it would not cause development to occur. Rather, the proposed LUE recognizes that ultimately growth and development depend on the initiative of individual developers and property owners. The LUE strategically accommodates projected growth along key corridors and near transit.

Urban Design Element

Unlike the proposed LUE, the proposed UDE would be an entirely new element of the City's General Plan and would replace the existing SRE upon approval by the City Council. The decision to include a UDE in the City's General Plan grew from the City's stated need to provide an urban framework that addresses the varying aesthetic characteristics associated with the historic districts, traditional neighborhoods, auto-oriented commercial centers, urbanized centers, and corridors located throughout the City. As the City continues to evolve, the UDE seeks to shape the urban environment by preserving the character of existing neighborhoods that define the City's unique physical and aesthetic character while allowing for the continued evolution and improvement of the City in areas targeted for new development.

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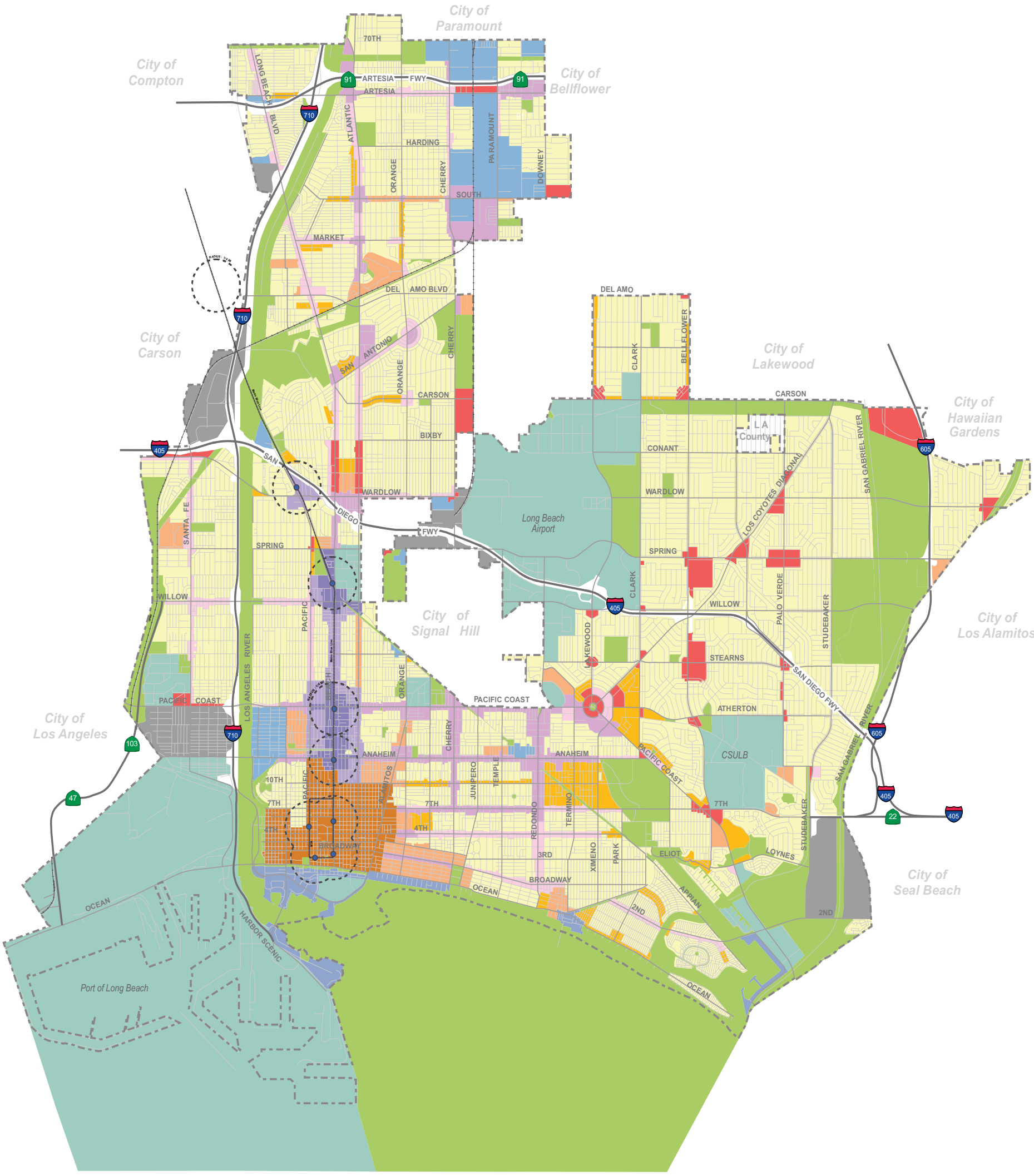

Legend

PlaceTypes

OS - Open Space

Neighborhoods

N - Founding and Contemporary Neighborhood

MFR -L - Multi-Family Residential - Low

MFR -M - Multi-Family Residential - Moderate

Mixed Use

NSC-L - Neighborhood-Serving Center or Corridor - Low

NSC-M - Neighborhood-Serving Center or Corridor - Moderate

TOD -L - Transit-Oriented Development - Low

TOD -M - Transit-Oriented Development - Moderate

Employment

CC - Community Commercial

I - Industrial

NI - Neo-Industrial

Unique

RSF - Regional-Serving Facility

DT - Downtown

WF - Waterfront

Light Rail Transit

Metro Blue Line Station and 1/4 Mile Radius

FIGURE 2

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SOURCE: Proposed Long Beach General Plan Land Use Element, March 2018

Long Beach General Plan
Land Use and Urban Design Elements

Project PlaceTypes

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The UDE would define the physical aspects of the urban environment. Specifically, the UDE aims to further enhance the City's PlaceTypes established in the LUE by creating great places; improving the urban fabric, and public spaces; and defining edges, thoroughfares, and corridors. It is the City's intention that creating great places would provide gathering spaces for community members to meet and provide a space for spontaneous activities to occur. By improving the urban fabric, the City would allow for new development that would complement the existing historical development while serving as a unique and distinctive feature of the City.

Similar to the concept of creating great places, the City aims to provide public spaces to allow for community engagement opportunities. The creation of edges, thoroughfares, and corridors would define the larger commercial and business centers of the City while also integrating pedestrian amenities that would provide transitions into adjacent PlaceTypes. Examples of such pedestrian amenities include the creation of "public rooms" where pedestrians can dine and gather along street frontages adjacent to ground-floor cafes and retail uses.

In addition to creating great places, urban fabrics, and public spaces, and defining edges, thoroughfares, and corridors, the City intends to utilize the UDE to foster healthy, sustainable neighborhoods; promote compact and connected development; minimize and fill in gaps in the urban fabric of existing neighborhoods; improve the cohesion between buildings, roadways, public spaces, and people; and improve the economic vitality of the City.

General Plan Anticipated Build Out

The proposed project would direct the long-term physical development in the City by guiding use, form, and characteristics of land improvements through the horizon year 2040. In order to plan for future growth in the City through the horizon year 2040, the proposed LUE accommodates demographic projections provided to the City by State and regional agencies. For the City and much of the Southern California region, the Southern California Association of Governments (SCAG) is the Metropolitan Planning Organization (MPO) that prepares demographic projections. SCAG projects population and employment growth as part of the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) process. For the 2016 RTP/SCS, SCAG forecasts population growth of 18,230 new residents and employment growth of 28,511 new jobs in the City by 2040.

The proposed LUE also incorporates housing projections provided by the Department of Housing and Community Development. Unlike other data projections, rather than being simply informative, the housing allocation provided to jurisdictions through the Regional Housing Needs Assessment (RHNA) process is enforceable through the Housing Accountability Act. As an outcome of the most recent RHNA process, the City is required to plan for 7,048 new dwelling units by the year 2021. Further, due to insufficient construction of new housing units within Long Beach and the region in the past, the City has many residential areas where existing housing units are overcrowded. In order to identify the number of new housing units required to alleviate overcrowding, the City engaged in an Assessment of Fair Housing with the United States Department of Housing and Urban Development (2016). As an outcome of this assessment, it was determined that the City has anticipated housing needs for 21,476 housing units to address existing housing needs. In total, 28,524 housing units are required to address future (7,048) and existing (21,476) housing needs. It is this number of units, which complies with both the State and federal assessments, which must be

accommodated in City planning documents, including the proposed LUE. Of the 28,524 new units, a total of 13,403 new housing units are already accommodated in recently approved specific plans (e.g., Downtown Plan, Midtown Specific Plan, and Southeast Area Specific Plan).[1] Therefore, the City would be required to facilitate the development of 15,121 new housing units outside of these specific plan areas.

As a result of the processes described above, anticipated build out of the proposed project includes the following quantities of demographic data growth:

- Population: 18,230 new residents, for a total of 484,485 by 2040
- Housing: 28,524 new dwelling units, for a total of 192,318 by 2040
- Employment: 28,511 new jobs anticipated, for a total of 181,665 by 2040

BACKGROUND

This section provides background information on air pollutants and their health effects. It also provides regulatory background information, including information from the California Air Resources Board's (CARB) *Air Quality and Land Use Handbook*[2] (CARB Handbook); a description of the general health risks of toxics, and the significance criteria for project evaluation.

Air Pollutants and Health Effects

Both State and Federal governments have established health-based Ambient Air Quality Standards for six criteria air pollutants:[3] carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead (Pb), and suspended particulate matter (PM). In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. Long-term exposure to elevated levels of criteria pollutants may result in adverse health effects. However, emission thresholds established by an air district are used to manage total regional emissions within an air basin based on the air basin's attainment status for criteria pollutants. These emission thresholds were established for individual projects that would contribute to regional emissions and pollutant concentrations and could adversely affect or delay the projected attainment target year for certain criteria pollutants.

Because of the conservative nature of the thresholds and the basin-wide context of individual project emissions, there is no known direct correlation between a single project and localized air quality-related health effects. One individual project that generates emissions exceeding a threshold does not necessarily result in adverse health effects for residents in the project vicinity. This

[1] In total, 39.3 percent of the anticipated future housing growth would occur within these Specific Plan areas (i.e., 17.5 percent in the Downtown area, 12.7 percent in the Transit-Oriented Development areas of the Midtown Specific Plan, and 9.1 percent in the Southeast Area Specific Plan).

[2] California Air Resources Board (ARB), 2005. *Air Quality and Land Use Handbook: A Community Health Perspective.* April.

[3] United States Environmental Protection Agency (EPA), 2014. Criteria pollutants are defined as those pollutants for which the Federal and State governments have established ambient air quality standards, or criteria, for outdoor concentrations in order to protect public health.

condition is especially true when the criteria pollutants exceeding thresholds are those with regional effects, such as ozone precursors like nitrogen oxides (NO_X) and reactive organic gases (ROG).

Occupants of facilities such as schools, daycare centers, parks and playgrounds, hospitals, and nursing and convalescent homes are considered to be more sensitive than the general public to air pollutants because these population groups have increased susceptibility to respiratory disease. Persons engaged in strenuous work or exercise also have increased sensitivity to poor air quality. Residential areas are considered more sensitive to air quality conditions, compared to commercial and industrial areas, because people generally spend longer periods of time at their residences, with greater associated exposure to ambient air quality conditions. Recreational uses are also considered sensitive compared to commercial and industrial uses due to greater exposure to ambient air quality conditions associated with exercise.

Ozone

Rather than being directly emitted, ozone (smog) is formed by photochemical reactions between NO_X and ROG. Ozone is a pungent, colorless gas. Elevated ozone concentrations result in reduced lung function, particularly during vigorous physical activity. This health problem is particularly acute in sensitive receptors such as the sick, elderly, and young children. Ozone levels peak during the summer and early fall months.

Carbon Monoxide

CO is formed by the incomplete combustion of fossil fuels, almost entirely from automobiles. It is a colorless, odorless gas that can cause dizziness, fatigue, and impairments to central nervous system functions. CO passes through the lungs into the bloodstream, where it interferes with the transfer of oxygen to body tissues.

Particulate Matter

Particulate matter is the term used for a mixture of solid particles and liquid droplets found in the air. Coarse particles are those that are 10 microns or less in diameter, or PM_{10}. Fine, suspended particulate matter with an aerodynamic diameter of 2.5 microns or less, or $PM_{2.5}$, is not readily filtered out by the lungs. Nitrates, sulfates, dust, and combustion particulates are major components of PM_{10} and $PM_{2.5}$. These small particles can be directly emitted into the atmosphere as byproducts of fuel combustion; through abrasion, such as tire or brake lining wear; or through fugitive dust (wind or mechanical erosion of soil). They can also be formed in the atmosphere through chemical reactions. Particulates may transport carcinogens and other toxic compounds that adhere to the particle surfaces and can enter the human body through the lungs.

Nitrogen Dioxide

NO_2 is a reddish brown gas that is a byproduct of combustion processes. Automobiles and industrial operations are the main sources of NO_2. Aside from its contribution to ozone formation, NO_2 also contributes to other pollution problems, including a high concentration of fine particulate matter, poor visibility, and acid deposition. NO_2 may be visible as a coloring component on high pollution days, especially in conjunction with high ozone levels. NO_2 decreases lung function and may reduce resistance to infection.

Sulfur Dioxide

SO_2 is a colorless, irritating gas formed primarily from incomplete combustion of fuels containing sulfur. Industrial facilities also contribute to gaseous SO_2 levels in the region. SO_2 irritates the respiratory tract, can injure lung tissue when combined with fine particulate matter, and reduces visibility and the level of sunlight.

Lead

Leaded gasoline (phased out in the United States beginning in 1973), paint (on older houses and cars), smelters (metal refineries), and the manufacture of lead storage batteries have been the primary sources of lead released into the atmosphere. Lead has multiple adverse neurotoxic health effects, and children are at special risk. Some lead-containing chemicals cause cancer in animals. Lead levels in the air have decreased substantially since leaded gasoline was eliminated. Ambient lead concentrations are only monitored on an as-warranted, site-specific basis in California. On October 15, 2008, the United States Environmental Protection Agency (USEPA) strengthened the national ambient air quality standard for lead by lowering it from 1.5 to 0.15 micrograms per cubic meter ($\mu g/m^3$). The USEPA revised the monitoring requirements for lead in December 2010. These requirements focus on airports and large urban areas, resulting in an increase in 76 monitors nationally.

Toxic Air Contaminants

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. TACs are injurious in small quantities and are regulated by the USEPA and the CARB. Some examples of TACs include benzene, butadiene, formaldehyde, and hydrogen sulfide. The identification, regulation, and monitoring of TACs is relatively recent compared to that for criteria pollutants.

TACs do not have ambient air quality standards, but are regulated by the USEPA, CARB, and the SCAQMD. In 1998, the CARB identified particulate matter from diesel-fueled engines as a TAC. The CARB has completed a risk management process that identified potential cancer risks for a range of activities using diesel-fueled engines.[1] High-volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic (e.g., distribution centers and truck stops) were identified as posing the highest risk to adjacent receptors. Other facilities associated with increased risk include warehouse distribution centers, large retail or industrial facilities, high-volume transit centers, and schools with a high volume of bus traffic. Health risks from TACs are a function of both concentration and duration of exposure.

Unlike TACs emitted from industrial and other stationary sources noted above, most diesel particulate matter is emitted from mobile sources—primarily "off-road" sources such as construction and mining equipment, agricultural equipment, and truck-mounted refrigeration units, as well as "on-road" sources such as trucks and buses traveling on freeways and local roadways.

[1] CARB, 2000. Stationary Source Division and Mobile Source Control Division. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles.* October.

Although not specifically monitored, recent studies indicate that exposure to diesel particulate matter may contribute significantly to a cancer risk (a risk of approximately 500 to 700 in 1,000,000) that is greater than all other measured TACs combined.[1] The technology for reducing diesel particulate matter emissions from heavy-duty trucks is well established, and both State and Federal agencies are moving aggressively to regulate engines and emission control systems to reduce and remediate diesel emissions. The CARB anticipates that by 2020, average statewide diesel particulate matter concentrations will decrease by 85 percent from levels in 2000 with full implementation of the CARB's Diesel Risk Reduction Plan,[2] meaning that the statewide health risk from diesel particulate matter is expected to decrease from 540 cancer cases in 1,000,000 to 21.5 cancer cases in 1,000,000.

Table A summarizes the sources and health effects of air pollutants discussed in this section. Table B presents a summary of State and Federal ambient air quality standards (AAQS).

Table A: Sources and Health Effects of Air Pollutants

Pollutants	Sources	Primary Effects
Carbon Monoxide (CO)	● Incomplete combustion of fuels and other carbon-containing substances, such as motor exhaust ● Natural events, such as decomposition of organic matter	● Reduced tolerance for exercise ● Impairment of mental function ● Impairment of fetal development ● Death at high levels of exposure ● Aggravation of some heart diseases (angina)
Nitrogen Dioxide (NO_2)	● Motor vehicle exhaust ● High temperature stationary combustion ● Atmospheric reactions	● Aggravation of respiratory illness ● Reduced visibility ● Reduced plant growth ● Formation of acid rain
Ozone (O_3)	● Atmospheric reaction of organic gases with nitrogen oxides in sunlight	● Aggravation of respiratory and cardiovascular diseases ● Irritation of eyes ● Impairment of cardiopulmonary function ● Plant leaf injury
Lead (Pb)	● Contaminated soil	● Impairment of blood functions and nerve construction ● Behavioral and hearing problems in children
Suspended Particulate Matter ($PM_{2.5}$ and PM_{10})	● Stationary combustion of solid fuels ● Construction activities ● Industrial processes ● Atmospheric chemical reactions	● Reduced lung function ● Aggravation of the effects of gaseous pollutants ● Aggravation of respiratory and cardiorespiratory diseases ● Increased cough and chest discomfort ● Soiling ● Reduced visibility
Sulfur Dioxide (SO_2)	● Combustion of sulfur-containing fossil fuels ● Smelting of sulfur-bearing metal ores Industrial processes	● Aggravation of respiratory diseases (asthma, emphysema) ● Reduced lung function ● Irritation of eyes ● Reduced visibility ● Plant injury ● Deterioration of metals, textiles, leather, finishes, coatings, etc.

Source: California Air Resources Board (2015).

[1] CARB, 2000. Stationary Source Division and Mobile Source Control Division. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles.* October.

[2] Ibid.

Table B: Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[a]		Federal Standards[b]		
		Concentration[c]	Method[d]	Primary[c,e]	Secondary[c,f]	Method[g]
Ozone (O3)[h]	1-Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	–	Same as Primary Standard	Ultraviolet Photometry
	8-Hour	0.07 ppm (137 µg/m^3)		0.070 ppm (137 µg/m^3)		
Respirable Particulate Matter (PM10)[i]	24-Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		–		
Fine Particulate Matter (PM2.5)[i]	24-Hour	-		35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12.0 µg/m^3		
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m^3)	–	Non-Dispersive Infrared Photometry (NDIR)
	1-Hour	20 ppm (23 mg/m^3)		35 ppm (40 mg/m^3)		
	8-Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		–	–	
Nitrogen Dioxide (NO2)[j]	Annual Arithmetic Mean	0.03 ppm (57 µg/m^3)	Gas Phase Chemi-luminescence	53 ppb (100 µg/m^3)	Same as Primary Standard	Gas Phase Chemi-luminescence
	1-Hour	0.18 ppm (339 µg/m^3)		100 ppb (188 µg/m^3)	-	
Lead (Pb)[l,m]	30-Day Average	1.5 µg/m^3	Atomic Absorption	–	–	High-Volume Sampler and Atomic Absorption
	Calendar Quarter	–		1.5 µg/m^3 (for certain areas)[l]	Same as Primary Standard	
	Rolling 3-Month Average[i]	–		0.15 µg/m^3		
Sulfur Dioxide (SO2)[k]	24-Hour	0.04 ppm (105 µg/m3)	Ultraviolet Fluorescence	0.14 ppm (for certain areas)	–	Ultraviolet Fluorescence; Spectro-photometry (Pararosaniline Method)
	3-Hour	–		–	0.5 ppm (1300 µg/m^3)	
	1-Hour	0.25 ppm (655 µg/m^3)		75 ppb (196 µg/m^3)[k]	–	
	Annual Arithmetic Mean	–		0.030 ppm (for certain areas)[k]	–	
Visibility-Reducing Particles[l]	8-Hour	See footnote n	Beta Attenuation and Transmittance through Filter Tape.	No Federal Standards		
Sulfates	24-Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[j]	24-Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

Table notes are provided on the following page.

[a] California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, and particulate matter (PM_{10}, $PM_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[b] National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact USEPA for further clarification and current national policies.

[c] Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[d] Any equivalent measurement method which can be shown to the satisfaction of the CARB to give equivalent results at or near the level of the air quality standard may be used.

[e] National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

[f] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[g] Reference method as described by the USEPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the USEPA.

[h] On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

[i] On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 µg/m^3 to 12.0 µg/m^3. The existing national 24- hour PM2.5 standards (primary and secondary) were retained at 35 µg/m^3, as was the annual secondary standard of 15 µg/m^3. The existing 24-hour PM10 standards (primary and secondary) of 150 µg/m^3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

[j] To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

[k] On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

[l] The CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[m] The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 µg/m^3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

[n] In 1989, the CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

°C = degrees Celsius
CARB = California Air Resources Board
USEPA = United States Environmental Protection Agency
ppb = parts per billion
ppm = parts per million
mg/m^3 = milligrams per cubic meter
µg/m^3 = micrograms per cubic meter

Source: California Air Resources Board, 2016. https://www.arb.ca.gov/research/aaqs/aaqs2.pdf

Greenhouse Gases and Global Climate Change

Global climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans in recent decades. The Earth's average near-surface atmospheric temperature rose 0.6 ± 0.2° Celsius (°C) or 1.1 ± 0.4° Fahrenheit (°F) in the 20th century. The prevailing scientific opinion on climate change is that most of the warming observed over the last 50 years is attributable to human activities. The increased amounts of carbon dioxide (CO_2) and other greenhouse gases (GHGs) are the primary causes of the human-induced component of warming. GHGs are released by the burning of fossil fuels, land clearing, agriculture, and other activities, and lead to an increase in the greenhouse effect.[1]

GHGs are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced global climate change are:

- Carbon dioxide (CO_2)
- Methane (CH_4)
- Nitrous oxide (N_2O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulfur Hexafluoride (SF_6)

Over the last 200 years, humans have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere, and enhancing the natural greenhouse effect, which is believed to be causing global warming. While manmade GHGs include naturally-occurring GHGs such as CO_2, methane, and N_2O, some gases, like HFCs, PFCs, and SF_6 are completely new to the atmosphere.

Certain gases, such as water vapor, are short-lived in the atmosphere. Others remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is excluded from the list of GHGs above because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation. For the purposes of this air quality analysis, the term "GHGs" will refer collectively to the six gases listed above only.

These gases vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each greenhouse gas to trap heat in the atmosphere relative to another gas. The global warming potential is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the

[1] The temperature on Earth is regulated by a system commonly known as the "greenhouse effect." Just as the glass in a greenhouse lets heat from sunlight in and reduces the heat escaping, greenhouse gases like carbon dioxide, methane, and nitrous oxide in the atmosphere keep the Earth at a relatively even temperature. Without the greenhouse effect, the Earth would be a frozen globe; thus, although an excess of greenhouse gas results in global warming, the naturally occurring greenhouse effect is necessary to keep our planet at a comfortable temperature.

atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to carbon dioxide, the most abundant GHG; the definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO_2 over a specified time period. GHG emissions are typically measured in terms of pounds or tons of "CO_2 equivalents" (CO_2e). Table C shows the GWP for each type of GHG. For example, sulfur hexafluoride is 22,800 times more potent at contributing to global warming than carbon dioxide.

Table C: Global Warming Potential of Greenhouse Gases

Gas	Atmospheric Lifetime (Years)	Global Warming Potential (100-Year Time Horizon)
Carbon Dioxide	50-200	1
Methane	12	25
Nitrous Oxide	114	298
HFC-23	270	14,800
HFC-134a	14	1,430
HFC-152a	1.4	124
PFC: Tetrafluoromethane (CF_4)	50,000	7,390
PFC: Hexafluoromethane (C_2F_6)	10,000	12,200
Sulfur Hexafluoride (SF_6)	3,200	22,800

Source: *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the IPCC* (Intergovernmental Panel on Climate Change, 2007).

The following discussion summarizes the characteristics of the six GHGs and black carbon.

Carbon Dioxide

In the atmosphere, carbon generally exists in its oxidized form, as CO_2. Natural sources of CO_2 include the respiration (breathing) of humans, animals and plants, volcanic out gassing, decomposition of organic matter and evaporation from the oceans. Human caused sources of CO_2 include the combustion of fossil fuels and wood, waste incineration, mineral production, and deforestation. Natural sources release approximately 150 billion tons of CO_2 each year, far outweighing the 7 billion tons of man-made emissions of CO_2 each year. Nevertheless, natural removal processes, such as photosynthesis by land- and ocean-dwelling plant species, cannot keep pace with this extra input of man-made CO_2, and consequently, the gas is building up in the atmosphere.

In 2016, CO_2 emissions accounted for approximately 83 percent of California's overall GHG emissions.[1] The transportation sector accounted for California's largest portion of CO_2 emissions, approximately 39 percent, with gasoline consumption making up the greatest portion of these emissions. Industrial sources were California's second largest category of GHG emissions.

[1] California Air Resources Board. 2018. *California Greenhouse Gas Emission Inventory – 2018 Edition*. July 11. Website: www.arb.ca.gov/cc/inventory/data/data.htm (accessed March 2019).

Methane

Methane is produced when organic matter decomposes in environments lacking sufficient oxygen. Natural sources include wetlands, termites, and oceans. Decomposition occurring in landfills accounts for the majority of human-generated CH_4 emissions in California and in the United States as a whole. Agricultural processes such as intestinal fermentation, manure management, and rice cultivation are also significant sources of CH_4 in California. Methane accounted for approximately 9.0 percent of GHG emissions in California in 2016.[1]

Total annual emissions of methane in California are approximately 38.9 million tons, with manmade emissions accounting for the majority. As with CO_2, the major removal process of atmospheric methane—a chemical breakdown in the atmosphere—cannot keep pace with source emissions, and methane concentrations in the atmosphere are increasing.

Nitrous Oxide

Nitrous oxide is produced naturally by a wide variety of biological sources, particularly microbial action in soils and water. Tropical soils and oceans account for the majority of natural source emissions. Nitrous oxide is a product of the reaction that occurs between nitrogen and oxygen during fuel combustion. Both mobile and stationary combustion emit N_2O, and the quantity emitted varies according to the type of fuel, technology, and pollution control device used, as well as maintenance and operating practices. Agricultural soil management and fossil fuel combustion are the primary sources of human-generated N_2O emissions in California. Nitrous oxide emissions accounted for approximately 3 percent of GHG emissions in California in 2016.[2]

Hydrofluorocarbons, Perfluorocarbons, and Sulfur Hexafluoride

HFCs are primarily used as substitutes for ozone-depleting substances regulated under the Montreal Protocol.[3] PFCs and SF_6 are emitted from various industrial processes, including aluminum smelting, semiconductor manufacturing, electric power transmission and distribution, and magnesium casting. There is no aluminum or magnesium production in California; however, the rapid growth in the semiconductor industry leads to greater use of PFCs. HFCs, PFCs, and SF_6 accounted for about 6 percent of man-made GHG emissions (CO_2e) in California in 2016.[4]

Black Carbon

Black carbon is the most strongly light-absorbing component of PM formed by burning fossil fuels such as coal, diesel, and biomass. Black carbon is emitted directly into the atmosphere in the form of $PM_{2.5}$ and is the most effective form of PM, by mass, at absorbing solar energy. Per unit of mass in

1 California Air Resources Board. 2018. *California Greenhouse Gas Emission Inventory – 2018 Edition*. July 11. Website: www.arb.ca.gov/cc/inventory/data/data.htm (accessed March 2019).

2 Ibid.

3 The Montreal Protocol is an international treaty that was approved on January 1, 1989, and was designated to protect the ozone layer by phasing out the production of several groups of halogenated hydrocarbons believed to be responsible for ozone depletion.

4 Ibid.

the atmosphere, black carbon can absorb one million times more energy than CO_2.[1] Black carbon contributes to climate change both directly, such as absorbing sunlight, and indirectly, such as affecting cloud formation. However, because black carbon is short-lived in the atmosphere, it can be difficult to quantify its effect on global-warming.

Most U.S. emissions of black carbon come from mobile sources (52 percent), particularly from diesel fueled vehicles. The other major source of black carbon is open biomass burning, including wildfires, although residential heating and industry also contribute. The CARB estimates that the annual black carbon emissions in California have decreased approximately 70 percent between 1990 and 2010 and are expected to continue to decline significantly due to controls on mobile diesel emissions.

Air Quality Regulatory Setting

The USEPA and the CARB regulate direct emissions from motor vehicles. The SCAQMD is the regional agency primarily responsible for regulating air pollution emissions from stationary sources (e.g., factories) and indirect sources (e.g., traffic associated with new development), as well as monitoring ambient pollutant concentrations.

Federal Clean Air Act

The 1970 Federal Clean Air Act authorized the establishment of national health-based air quality standards and also set deadlines for their attainment. The Federal Clean Air Act Amendments of 1990 changed deadlines for attaining national standards as well as the remedial actions required of areas of the nation that exceed the standards. Under the Clean Air Act, State and local agencies in areas that exceed the national standards are required to develop State Implementation Plans to demonstrate how they will achieve the national standards by specified dates.

California Clean Air Act

In 1988, the California Clean Air Act (CCAA) required that all air districts in the State endeavor to achieve and maintain CAAQS for carbon monoxide, ozone, sulfur dioxide, and nitrogen dioxide by the earliest practical date. The California Clean Air Act provides districts with authority to regulate indirect sources and mandates that air quality districts focus particular attention on reducing emissions from transportation and area-wide emission sources. Each nonattainment district is required to adopt a plan to achieve a 5 percent annual reduction, averaged over consecutive 3-year periods, in district-wide emissions of each nonattainment pollutant or its precursors. A Clean Air Plan shows how a district would reduce emissions to achieve air quality standards. Generally, the State standards for these pollutants are more stringent than the national standards.

California Air Resources Board

The CARB is the State's "clean air agency." The CARB's goals are to attain and maintain healthy air quality, protect the public from exposure to toxic air contaminants, and oversee compliance with air pollution rules and regulations.

[1] U.S. Environmental Protection Agency, 2015. *Black Carbon*. September. Website: www3.epa.gov/blackcarbon/basic.html (accessed March 2019).

Assembly Bill 2588 Air Toxics "Hot Spots" Information and Assessment Act. Under Assembly Bill (AB) 2588, stationary sources of air pollutants are required to report the types and quantities of certain substances their facilities routinely released into the air. The goals of the Air Toxics "Hot Spots" Act are to collect emission data, identify facilities having localized impacts, determine health risks, and notify nearby residents of significant risks.

The California Air Resources Board Handbook. The CARB has developed an Air Quality and Land Use Handbook[1] which is intended to serve as a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process. According to the CARB Handbook, recent air pollution studies have shown an association between respiratory and other non-cancer health effects and proximity to high traffic roadways. Other studies have shown that diesel exhaust and other cancer-causing chemicals emitted from cars and trucks are responsible for much of the overall cancer risk from airborne toxics in California. The CARB Handbook recommends that county and city planning agencies strongly consider proximity to these sources when finding new locations for "sensitive" land uses such as homes, medical facilities, daycare centers, schools, and playgrounds.

Land use designations with air pollution sources of concern include freeways, rail yards, ports, refineries, distribution centers, chrome plating facilities, dry cleaners, and large gasoline service stations. Key recommendations in the CARB Handbook include taking steps to avoid siting new, sensitive land uses:

- Within 500 feet of a freeway, urban roads with 100,000 vehicles/day or rural roads with 50,000 vehicles/day;
- Within 1,000 feet of a major service and maintenance rail yard;
- Immediately downwind of ports (in the most heavily impacted zones) and petroleum refineries;
- Within 300 feet of any dry cleaning operation (for operations with two or more machines, provide 500 feet); and
- Within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater).

The CARB Handbook specifically states that its recommendations are advisory and acknowledges land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues.

The recommendations are generalized and do not consider site-specific meteorology, freeway truck percentages, or other factors that influence risk for a particular project site. The purpose of this guidance is to further examine project sites for actual health risk associated with the location of new sensitive land uses.

[1] CARB. 2005. *Air Quality and Land Use Handbook: A Community Health Perspective.* April.

South Coast Air Quality Management District

The SCAQMD has jurisdiction over most air quality matters in the South Coast Air Basin (Basin). This area includes all of Orange County, Los Angeles County except for the Antelope Valley, the non-desert portion of western San Bernardino County, and the western and Coachella Valley portions of Riverside County. Los Angeles County is a subregion of the SCAQMD jurisdiction. The SCAQMD is the agency principally responsible for comprehensive air pollution control in the Basin and is tasked with implementing certain programs and regulations required by the CAA and the CCAA. The SCAQMD prepares plans to attain State and national ambient air quality standards (NAAQS). SCAQMD is directly responsible for reducing emissions from stationary (area and point) sources. The SCAQMD develops rules and regulations, establishes permitting requirements, inspects emissions sources, and enforces such measures though educational programs or fines, when necessary.

The proposed project could be subject to the following SCAQMD rules and regulations:

- **Regulation IV - Prohibitions:** This regulation sets forth the restrictions for visible emissions, odor nuisance, fugitive dust, various air pollutant emissions, fuel contaminants, start-up/shutdown exemptions, and breakdown events.
    - **Rule 402 - Nuisance:** This rule restricts the discharge of any contaminant in quantities that cause or have a natural ability to cause injury, damage, nuisance, or annoyance to businesses, property, or the public.
    - **Rule 403 - Fugitive Dust:** This rule requires the prevention, reduction, or mitigation of fugitive dust emissions from a project site. Rule 403 restricts visible fugitive dust to a project property line, restricts the net PM_{10} emissions to less than 50 $\mu g/m^3$ and restricts the tracking out of bulk materials onto public roads. Additionally, Rule 403 requires an applicant to utilize one or more of the best available control measures (identified in the tables within the rule). Control measures may include adding freeboard to haul vehicles, covering loose material on haul vehicles, watering, using chemical stabilizers, and/or ceasing all activities. Finally, Rule 403 requires that a contingency plan be prepared if so determined by the USEPA. In addition, SCAQMD Rule 403(e), Additional Requirements for Large Operations, includes requirements to provide Large Operation Notification Form 403 N, appropriate signage, additional dust control measures, and employment of a dust control supervisor that has successfully completed the Dust Control training class in the South Coast Air Basin.
- **Regulation XI - Source Specific Standards:** Regulation XI sets emissions standards for different sources.
    - **Rule 1113 - Architectural Coatings:** This rule limits the amount of volatile organic compounds (VOCs) from architectural coatings and solvents, which lowers the emissions of odorous compounds.

The SCAQMD is responsible for demonstrating regional compliance with ambient air quality standards but has limited indirect involvement in reducing emissions from fugitive, mobile, and

natural sources. To that end, the SCAQMD works cooperatively with the CARB, the Southern California Association of Governments (SCAG), county transportation commissions, local governments, and other Federal and State government agencies. It has responded to this requirement by preparing a series of AQMPs to meet the CAAQS and NAAQS. SCAQMD and the SCAG are responsible for formulating and implementing the Air Quality Management Plan (AQMP) for the South Coast Air Basin. The main purpose of an AQMP is to bring the area into compliance with federal and State air quality standards. Every 3 years, SCAQMD prepares a new AQMP, updating the previous plan and 20-year horizon.[1]

SCAQMD approved the 2016 AQMP on March 3, 2017, and submitted the plan to CARB on March 10, 2017. Key elements of the 2016 AQMP include the following:

- Calculating and taking credit for co-benefits from other planning efforts (e.g., climate, energy, and transportation)
- A strategy with fair-share emission reductions at the federal, State, and local levels
- Investment in strategies and technologies meeting multiple air quality objectives
- Seeking new partnerships and significant funding for incentives to accelerate deployment of zero-emission and near-zero emission technologies
- Enhanced socioeconomic assessment, including an expanded environmental justice analysis
- Attainment of the 24-hour $PM_{2.5}$ standard in 2019 with no additional measures
- Attainment of the annual $PM_{2.5}$ standard by 2025 with implementation of a portion of the O_3 strategy
- Attainment of the 1-hour O_3 standard by 2022 with no reliance on "black box" future technology (FCAA Section 182(e)(5) measures)

Southern California Association of Governments

SCAG is a council of governments for Los Angeles, Orange, Riverside, San Bernardino, Imperial, and Ventura Counties. It is a regional planning agency and serves as a forum for regional issues relating to transportation, the economy and community development, and the environment. SCAG is the federally designated Metropolitan Planning Organization (MPO) for the majority of the southern California region and is the largest MPO in the nation. With regard to air quality planning, SCAG prepares the RTP and Regional Transportation Improvement Program (RTIP), which address regional development and growth forecasts and form the basis for the land use and transportation control portions of the AQMP and are utilized in the preparation of the air quality forecasts and consistency analysis included in the AQMP. The RTP, RTIP, and AQMP are based on projections originating within local jurisdictions.

[1] South Coast Air Quality Management District (SCAQMD), 2016. *Final 2016 Air Quality Management Plan*. March.

Although SCAG is not an air quality management agency, it is responsible for developing transportation, land use, and energy conservation measures that affect air quality. SCAG's Regional Comprehensive Plan (RCP) provides growth forecasts that are used in the development of air quality–related land use and transportation control strategies by the SCAQMD. The RCP is a framework for decision-making for local governments, assisting them in meeting Federal and State mandates for growth management, mobility, and environmental standards, while maintaining consistency with regional goals regarding growth and changes. Policies within the RCP include consideration of air quality, land use, transportation, and economic relationships by all levels of government.

On April 7, 2016, SCAG adopted the 2016–2040 RTP/SCS. Using growth forecasts and economic trends, the RTP provides a vision for transportation throughout the region for the next 20 years. It considers the role of transportation in the broader context of economic, environmental, and quality-of-life goals for the future, identifying regional transportation strategies to address mobility needs. The SCS is a newly required element of the RTP, which integrates land use and transportation strategies to achieve CARB emissions reduction targets. The inclusion of the SCS is required by Senate Bill (SB) 375, which was enacted to reduce GHG emissions from automobiles and light trucks through integrated transportation, land use, housing, and environmental planning. The RTP/SCS would successfully achieve and exceed the GHG emission-reduction targets set by the CARB by achieving an 8 percent reduction by 2020, an 18 percent reduction by 2035, and a 21 percent reduction by 2040 compared to the 2005 level on a per capita basis. This RTP/SCS also meets criteria pollutant emission budgets set by the USEPA.

The 2016–2040 RTP/SCS includes a strong commitment to reduce emissions from transportation sources to comply with SB 375, improve public health, and meet the NAAQS as set forth by the CAA. Even with ongoing aggressive control strategies, ever more stringent national O_3 standards require further NO_X emission reductions in the SCAG region. In the Basin, for example, it is estimated that NO_X emissions will need to be reduced by approximately 50 percent in 2023 and an additional 15 percent NO_X reduction beyond 2023 levels by 2031. Most sources of NO_X emissions, cars and factories, are already controlled by over 90 percent. The level of emission reduction required is so significant that 2030 emissions forecast from just three sources—ships, trains, and aircraft—would lead to O_3 levels near the Federal standard. To accomplish the reduction required to meet O_3 standards, the 2016–2040 RTP/SCS contains a regional commitment for the broad deployment of zero- and near-zero emission transportation technologies in the 2023–2040 time frame and clear steps to move toward this objective.

SCAG submits a list of transportation-related projects (in the RTP/SCS) for potential funding by the Federal Highway Administration (FHWA). The FHWA will review and approve either portions of, or all of, the list of transportation projects. This review will include a determination regarding whether the Federal agency's actions on these transportation projects would conform to the California SIP. SCAQMD incorporates the SCAG RTP/SCS emission budget for mobile sources into the AQMP emissions inventory analysis for all sources of emissions (including stationary, area, and mobile). Conformity analysis and the USEPA review and approval actions are not subject to CEQA review.

City of Long Beach General Plan Air Quality Element

The City of Long Beach General Plan addresses air quality in the Air Quality Element. The Air Quality Element contains goals, policies, and actions in relation to government organization roles and responsibilities, ground transportation, air transportation, land use, particulate emission, energy conservation, and education. The following goals and policies from the City of Long Beach General Plan Air Quality Element are applicable to the proposed project.

- **Goal 1:** Effective coordination of air quality improvement efforts in the South Coast Air Basin, the Southeast Los Angeles County (SELAC) subregion of SCAG, and other agencies.
    - **Policy 1.1: Establish a Coordinated Approach.** Coordinate with other jurisdictions in the South Coast Air Basin a continuation of the consortium to establish air quality plans and implementation programs where practical.
    - **Policy 1.2: Encourage Community Participation.** Involve environmental groups, the business community, special interests, and the general public in the formulation and implementation of programs that effectively reduce airborne pollutants.
- **Goal 2:** A diverse and efficient ground transportation system that minimizes air pollutant emissions.
    - **Policy 2.1.1: Reduce Vehicle Trips.** Use incentives, regulations, and transportation demand management techniques, in cooperation with other jurisdictions in the South Coast Air Basin to eliminate vehicle trips that would otherwise occur.
    - **Policy 2.1.2: Reduce Vehicle Miles Traveled.** Use incentives, regulations, and transportation demand management in cooperation with other jurisdictions in the South Coast Air Basin, to reduce vehicle miles traveled.
    - **Policy 2.1.3: Increase Cost-Effectiveness of Transportation and Parking Systems.** Make cost-effective improvements to transportation and parking systems that will reduce traffic congestion and resulting emissions.
    - **Policy 2.2.1: Modify Work Schedules.** Promote and establish modified work schedules that reduce peak period auto travel.
    - **Policy 2.3.1: Expand Transit in the City and the Region.** Cooperate in efforts to expand all forms of mass transit within the City and the South Coast Air Basin.
    - **Policy 2.4.1: Promote Non-Motorized Transportation.** Promote convenient and continuous bicycle paths and pleasant pedestrian environments that will encourage non-motorized travel within the City.
    - **Policy 2.5.1: Manage the Parking Supply.** Manage the City's parking supply to inhibit auto use, while ensuring that economic development goals are not sacrificed.

  - **Policy 2.6.1: Support Legislation.** Participate with other local governments in seeking State and Federal legislation to improve vehicle/transportation technology and establish a direct link between the true cost of emissions and the sources of pollution.

  - **Policy 2.6.2: Fleet Conversion to Clean Fuels.** Play a leadership role in the conversion to clean fuels by promoting the increased use of compressed natural gas (CNG), electric vehicles, and other alternative fuels.

- **Goal 3:** Minimum feasible emissions from Long Beach Airport.

  - **Policy 3.1: Promote Improved Technology.** Promote the use of the best available technology to reduce emissions from aircraft frequenting the Long Beach Airport.

- **Goal 4:** Minimum feasible emissions from the Ports of Long Beach and Los Angeles.

  - **Policy 4.1:** Minimize emissions from ships.

  - **Policy 4.2:** Reduce the impacts of rail-related emissions on Long Beach neighborhoods and the downtown.

  - **Policy 4.3:** Monitor particulate pollution at the Ports and locations downwind, and pursue methods of reducing emissions while accommodating needed growth.

- **Goal 5:** A pattern of land uses that can be efficiently served by a diversified transportation system and that directly and indirectly minimizes air pollutants.

  - **Policy 5.1: Manage Growth.** Regulate land use and promote development in a manner that will support established transit services and reduce the need for the automobile.

  - **Policy 5.2: Balance Growth.** Improve the balance between jobs and housing to create a more efficient urban form.

- **Goal 6:** Minimize particulate emissions from the construction and operation of roads and buildings, from mobile sources, and from the transportation, handling, and storage of materials.

  - **Policy 6.1: Control Dust.** Further reduce particulate emissions from roads, parking lots, construction sites, unpaved alleys, and port operations and related uses.

- **Goal 7:** Reduce emissions through reduced energy consumption.

  - **Policy 7.1: Energy Conservation.** Reduce energy consumption through conservation improvements and requirements.

  - **Policy 7.2: Recycle Wastes.** Promote local recycling of wastes and the use of recycled materials.

- **Goal 8:** Education of City residents concerning air quality, energy, and congestion issues, and the need to modify present travel behavior and energy consumption patterns.
    - **Policy 8.1:** Promote public education programs at the local, subregional, and regional level to encourage residents to modify their behavior to reduce automobile trips. Coordinate with the Long Beach Unified School District, the Long Beach City College, California State University Long Beach, the American Lung Association, other jurisdictions and agencies, and environmental groups in the development of programs and campaigns to increase awareness of, and the number of stakeholders in, air quality, energy, and congestion issues.

City of Long Beach General Plan Mobility Element

The Mobility Element[1] of the City of Long Beach General Plan aims at creating a safe, efficient, balanced, and multimodal mobility network that maintains and enhances air, ground, and water transportation capacity, and leads the region by example with innovative and experimental practices, including goals, policies, and actions that help reduce air pollutants and GHG emissions through more efficient transportation. The following goals, strategies, and policies from the City of Long Beach General Plan Mobility Element are applicable to the proposed project and will reduce air pollutant emissions including GHG emissions:

- **Goal 1:** Create a safe, efficient, balanced, and multimodal mobility network.
    - **Strategy 1:** Establish a network of complete streets that complements the related street type.
        - **Mobility of People (MOP) Policy 1-9:** Increase mode shift of transit, pedestrians, and bicycles.
        - **MOP Policy 1-12:** Encourage large employers to provide transit subsidies, bicycle facilities, alternative work schedules, ridesharing, telecommuting and work-at-home programs, employee education, and preferential parking for carpools/vanpools.
        - **MOP Policy 1-17:** Develop land use policies that focus development potential in locations best served by transit.
    - **Strategy 2:** Reconfigure streets to emphasize their modal priorities.
        - **MOP Policy 2-17:** Ensure safe, convenient, and adequate on- and off-street bicycle parking facilities to accommodate and encourage residents to cycle for commuting and daily needs.
    - **Strategy 3:** Strategically improve congested intersections and corridors.

[1] City of Long Beach. 2013. *Long Beach General Plan*. October.

- **MOP Policy 4-3:** Develop a new Multimodal Level of Service (MMLOS) methodology that includes the following components:
  - Emphasis on pedestrian and bicycle access and circulation.
  - Maintenance of appropriate emergency vehicle access and response time.
  - Support for reduced vehicle miles traveled.
  - Considers, but does not deem, auto congestion in Downtown or Long Beach Boulevard transit-oriented development (TOD) district to be an impact.

- **Strategy 5:** Reduce the environmental impacts of the transportation system.
  - **MOP Policy 5-2:** Reduce vehicle miles traveled (VMT) and vehicle trips through the use of alternative modes of transportation and Transportation Demand Management (TDM).
  - **MOP Policy 5-3:** Encourage the use of low- or no-emission vehicles to reduce pollution.
  - **MOP Policy 5-4:** Promote car-sharing and Neighborhood Electric Vehicle ownership as an important means to reduce traffic congestion.
  - **MOP Policy 5-5:** Sustain the recent improvements in air quality and achieve further significant progress in such improvements to meet State and Federal mandates.

- **Strategy 6:** Manage the supply of parking.
  - **MOP Policy 6-3:** Where appropriate, encourage the conversion of on-street parking space for expanded sidewalk widths or landscaping.
  - **MOP Policy 6-7:** Support using parking supply and pricing as a strategy to encourage use of non-automobile modes where feasible.
  - **MOP Policy 6-8:** Where applicable, encourage users to park once to meet all of their travel needs within the City.
  - **MOP Policy 6-11:** Encourage the use of transit, carpooling, and walking to reduce the need for parking.
  - **MOP Policy 6-12:** Promote transit-oriented development with reduced parking requirements around appropriate transit hubs and stations to facilitate the use of available transit services.

        - **MOP Policy 6-13:** Consider reducing parking requirements for mixed-use developments, for developments providing shared parking or a comprehensive TDM Program, or developments located near major transit hubs.

        - **MOP Policy 6-15:** Encourage and provide incentives for commercial, office, and industrial development to provide preferred parking for carpools, vanpools, electric vehicles, and flex cars.

- **Goal 3:** Lead the region by example with innovative and experimental practices.

    - **Strategy 10:** Be a leader in regional cooperation on transportation issues.

    - **Strategy 11:** Adapt mobility strategies and programs based on new concepts and technologies that reduce environmental impacts and increase quality of life.

    - **Strategy 12:** Develop freight-related improvements consistent with the regional transportation network.

        - **Mobility of Goods (MOG) Policy 13-2:** Reduce truck congestion and parking impacts on city streets.

    - **Strategy 14:** Reduce the air quality impacts of freight transportation and port-related traffic.

        - **MOG Policy 14-1:** Provide for the efficient, clean, and safe movement of goods to support commerce and industry.

        - **MOG Policy 14-2:** Adopt and enforce truck routes to minimize the impacts of truck emissions on the community.

        - **MOG Policy 14-3:** Reduce congestion on freeways and designated truck routes.

        - **MOG Policy 14-4:** Encourage ridesharing activities within the Harbor District to reduce vehicle miles traveled (VMT) and parking space requirements in compliance with the South Coast Air Quality Management District requirements.

City of Long Beach Sustainable City Action Plan

The City of Long Beach's Sustainable City Action Plan (SCAP) was adopted in February 2010. The SCAP is intended to guide operational, policy, and financial decisions to create a more sustainable Long Beach. The SCAP includes initiatives, goals, and actions that will move Long Beach toward becoming a sustainable city. These goals and actions included in the SCAP relate to the following:

- Buildings & Neighborhoods
- Energy
- Green Economy & Lifestyle
- Transportation

- Urban Nature
- Waste Reduction
- Water

City of Long Beach Climate Action and Adaptation Plan

In 2017, the City of Long Beach began development of a Climate Action and Adaptation Plan (CAAP). The CAAP aims to reduce communitywide GHG emissions, and help the city adapt to future climate change impacts. As part of the CAAP, the City conducted a communitywide GHG inventory to identify its baseline emissions footprint, and is developing business-as-usual forecasts of emissions based on anticipated growth in population, employment, housing, and other factors in the community. In the next stages of the project, the City will establish GHG reduction targets and define local actions to achieve those targets.

The CAAP will provide a framework for creating or updating policies, programs, practices, and incentives for Long Beach residents and businesses to reduce the City's GHG footprint, and ensure the community and physical assets are better protected from the impacts of climate change. The policies, programs, practices, and incentives included in the CAAP will relate to the following:

- Public Health
- Water Supply
- Housing & Neighborhoods
- Coastal Resources
- Parks and Open Space
- Transportation
- Energy
- Wastewater/Stormwater

Global Climate Change Regulation

This section describes regulations related to Global Climate Change at the federal, State, and local level.

Federal Regulations

The United States has historically had a voluntary approach to reducing greenhouse gas emissions. However, on April 2, 2007, the United States Supreme Court ruled that the USEPA has the authority to regulate CO_2 emissions under the federal Clean Air Act. While there currently are no adopted federal regulations for the control or reduction of greenhouse gas emissions, the USEPA commenced several actions in 2009 to implement a regulatory approach to global climate change.

This includes the 2009 USEPA final rule for mandatory reporting of greenhouse gases from large greenhouse gas emission sources in the United States. Additionally, the USEPA Administrator signed an endangerment finding action in 2009 under the Clean Air Act, finding that six greenhouse gases (CO_2, CH_4, N_2O, HFCs, PFCs, SF_6) constitute a threat to public health and welfare, and that the combined emissions from motor vehicles cause and contribute to global climate change, leading to national greenhouse gas emission standards.

State Regulations

The CARB is the lead agency for implementing climate change regulations in the State. Since its formation, the CARB has worked with the public, the business sector, and local governments to find solutions to California's air pollution problems. Key efforts by the State are described below.

Assembly Bill 1493 (2002). In a response to the transportation sector's significant contribution to California's CO_2 emissions, AB 1493 was enacted on July 22, 2002. AB 1493 requires the CARB to set greenhouse gas emission standards for passenger vehicles and light duty trucks (and other vehicles whose primary use is noncommercial personal transportation in the State) manufactured in 2009 and all subsequent model years. These standards (starting in model years 2009 to 2016) were approved by the CARB in 2004, but the needed waiver of CAA Preemption was not granted by the USEPA until June 30, 2009. The CARB responded by amending its original regulation, now referred to as Low Emission Vehicle III, to take effect for model years starting in 2017 to 2025.

Executive Order S-3-05 (2005). Governor Arnold Schwarzenegger signed Executive Order S-3-05 on June 1, 2005, which proclaimed that California is vulnerable to the impacts of climate change. To combat those concerns, the executive order established California's greenhouse gas emissions reduction targets, which established the following goals:

- Greenhouse gas emissions should be reduced to 2000 levels by 2010;
- Greenhouse gas emissions should be reduced to 1990 levels by 2020; and
- Greenhouse gas emissions should be reduced to 80 percent below 1990 levels by 2050.

The Secretary of the California Environmental Protection Agency (CalEPA) is required to coordinate efforts of various State agencies in order to collectively and efficiently reduce greenhouse gases. A biannual progress report must be submitted to the Governor and State Legislature disclosing the progress made toward greenhouse emission reduction targets. In addition, another biannual report must be submitted illustrating the impacts of global warming on California's water supply, public health, agriculture, the coastline, and forestry, and report possible mitigation and adaptation plans to address these impacts.

The Secretary of CalEPA leads this Climate Action Team (CAT) made up of representatives from State agencies as well as numerous other boards and departments. The CAT members work to coordinate statewide efforts to implement global warming emission reduction programs and the State's Climate Adaptation Strategy. The CAT is also responsible for reporting on the progress made toward meeting the statewide greenhouse gas targets that were established in the executive order and further defined under AB 32, the "Global Warming Solutions Act of 2006." The first CAT Report to the Governor and the Legislature was released in March 2006, which it laid out 46 specific emission reduction strategies for reducing greenhouse gas emissions and reaching the targets established in the Executive Order. The CAT Report to the Governor and Legislature; the most recent was released in December 2010.

Assembly Bill 32 (2006), California Global Warming Solutions Act. California's major initiative for reducing greenhouse gas emissions is AB 32, passed by the State legislature on August 31, 2006. This effort aims at reducing greenhouse gas emissions to 1990 levels by 2020. The CARB has established

the level of greenhouse gas emissions in 1990 at 427 million metric tons (MMT) of CO_2e. The emissions target of 427 MMT requires the reduction of 169 MMT from the State's projected business-as-usual 2020 emissions of 596 MMT. AB 32 requires the CARB to prepare a Scoping Plan that outlines the main State strategies for meeting the 2020 deadline and to reduce greenhouse gases that contribute to global climate change. The Scoping Plan was approved by the CARB on December 11, 2008, and contains the main strategies California will implement to achieve the reduction of approximately 169 MMT of CO_2e, or approximately 30 percent, from the State's projected 2020 emissions level of 596 MMT of CO_2e under a business-as-usual scenario (this is a reduction of 42 MMT CO_2e, or almost 10 percent from 2002–2004 average emissions). The Scoping Plan also includes CARB-recommended greenhouse gas reductions for each emissions sector of the State's greenhouse gas inventory. The Scoping Plan calls for the largest reductions in greenhouse gas emissions to be achieved by implementing the following measures and standards:

- Improved emissions standards for light-duty vehicles (estimated reductions of 31.7 MMT CO_2e);
- The Low-Carbon Fuel Standard (15.0 MMT CO_2e);
- Energy efficiency measures in buildings and appliances and the widespread development of combined heat and power systems (26.3 MMT CO_2e); and
- A renewable portfolio standard for electricity production (21.3 MMT CO_2e).

The Scoping Plan identifies 18 emission reduction measures that address cap-and-trade programs, vehicle gas standards, energy efficiency, low carbon fuel standards, renewable energy, regional transportation-related greenhouse gas targets, vehicle efficiency measures, goods movement, solar roof programs, industrial emissions, high speed rail, green building strategies, recycling, sustainable forests, water, and air. The measures would result in a total reduction of 174 MMT CO_2e by 2020.

On August 24, 2011, the CARB unanimously approved both the new supplemental assessment and reapproved its Scoping Plan, which provides the overall roadmap and rule measures to carry out AB 32. The CARB also approved a more robust CEQA equivalent document supporting the supplemental analysis of the cap-and-trade program. The cap-and-trade took effect on January 1, 2012, with an enforceable compliance obligation that began January 1, 2013.

CARB has not yet determined what amount of greenhouse gas reductions it recommends from local government operations and local land use decisions; however, the Scoping Plan states that land use planning and urban growth decisions will play an important role in the State's greenhouse gas reductions because local governments have primary authority to plan, zone, approve, and permit how land is developed to accommodate population growth and the changing needs of their jurisdictions (meanwhile, CARB is also developing an additional protocol for community emissions). CARB further acknowledges that decisions on how land is used will have large impacts on the greenhouse gas emissions that will result from the transportation, housing, industry, forestry, water, agriculture, electricity, and natural gas emission sectors. The Scoping Plan states that the ultimate greenhouse gas reduction assignment to local government operations is to be determined. With

regard to land use planning, the Scoping Plan expects an approximately 5.0 MMT CO_2e reduction due to implementation of Senate Bill 375 (SB 375).

In addition to reducing greenhouse gas emissions to 1990 levels by 2020, AB 32 directed the CARB and the CAT to identify a list of "discrete early action greenhouse gas reduction measures" that could be adopted and made enforceable by January 1, 2010. On January 18, 2007, Governor Schwarzenegger signed Executive Order S-1-07, further solidifying California's dedication to reducing greenhouse gases by setting a new Low Carbon Fuel Standard. The Executive Order sets a target to reduce the carbon intensity of California transportation fuels by at least 10 percent by 2020 and directs the CARB to consider the Low Carbon Fuel Standard as a discrete early action measure. In 2011, U.S. District Court Judge Lawrence O'Neil issued an injunction preventing implementation of the Low Carbon Fuel Standard, ruling that it is unconstitutional. In 2012, the Ninth Circuit Court of Appeal stayed the District Court's injunction, allowing implementation of the Low Carbon Fuel Standard. The Ninth Circuit decided to uphold the Low Carbon Fuel Standard.

In June 2007, the CARB approved a list of 37 early action measures, including three discrete early action measures (Low Carbon Fuel Standard, Restrictions on GWP Refrigerants, and Landfill CH_4 Capture).[1] Discrete early action measures are measures that were required to be adopted as regulations and made effective no later than January 1, 2010, the date established by Health and Safety Code Section 38560.5. The CARB adopted additional early action measures in October 2007 that tripled the number of discrete early action measures. These measures relate to truck efficiency, port electrification, reduction of PFCs from the semiconductor industry, reduction of propellants in consumer products, proper tire inflation, and SF_6 reductions from the non-electricity sector. The combination of early action measures is estimated to reduce statewide greenhouse gas emissions by nearly 16 MMT.[2]

The CARB approved the First Update to the Climate Change Scoping Plan on May 22, 2014. The First Update identifies opportunities to leverage existing and new funds to further drive greenhouse gas emission reductions through strategic planning and targeted low carbon investments. The First Update defines CARB climate change priorities until 2020, and also sets the groundwork to reach long-term goals set forth in Executive Orders S-3-05 and B-16-2012. The Update highlights California's progress toward meeting the "near-term" 2020 greenhouse gas emission reduction goals as defined in the initial Scoping Plan. It also evaluates how to align the State's "longer-term" greenhouse gas reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land use. CARB released a second update to the Scoping Plan, the 2017 Scoping Plan,[3] to reflect the 2030 target set by Executive Order B-30-15 and codified by Senate Bill 32 (SB 32).

Senate Bill 97 (2007). SB 97, signed by the Governor in August 2007 (Chapter 185, Statutes of 2007; Public Resources Code, Sections 21083.05 and 21097), acknowledges climate change is a prominent

1 California Air Resources Board. 2007. *Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California Recommended for Board Consideration*. October.

2 California Air Resources Board. 2007. "ARB approves tripling of early action measures required under AB 32" News Release 07-46. October 25.

3 California Air Resources Board. 2017. *California's 2017 Climate Change Scoping Plan*. November.

environmental issue that requires analysis under CEQA. This bill directed the OPR to prepare, develop, and transmit to the California Resources Agency guidelines for mitigating greenhouse gas emissions or the effects of greenhouse gas emissions, as required by CEQA.

The California Natural Resources Agency adopted the amendments to the CEQA Guidelines in November 2018, which went into effect in December 2018. The amendments do not identify a threshold of significance for greenhouse gas emissions, nor do they prescribe assessment methodologies or specific mitigation measures. The amendments encourage lead agencies to consider many factors in performing a CEQA analysis, but preserve the discretion granted by CEQA to lead agencies in making their own determinations based on substantial evidence. The amendments also encourage public agencies to make use of programmatic mitigation plans and programs when they perform individual project analyses.

Senate Bill 375 (2008). SB 375, the Sustainable Communities and Climate Protection Act, which establishes mechanisms for the development of regional targets for reducing passenger vehicle GHG emissions, was adopted by the State on September 30, 2008. On September 23, 2010, the CARB adopted the vehicular GHG emissions reduction targets that had been developed in consultation with the Metropolitan Planning Organization (MPOs); the targets require a 6 to 15 percent reduction by 2020 and between 13 to 19 percent reduction by 2035 for each MPO. SB 375 recognizes the importance of achieving significant GHG reductions by working with cities and counties to change land use patterns and improve transportation alternatives. Through the SB 375 process, MPOs such as the Southern California Association of Governments (SCAG) will work with local jurisdictions in the development of Sustainable Communities Strategy (SCS) designed to integrate development patterns and the transportation network in a way that reduces GHG emissions while meeting housing needs and other regional planning objectives. Pursuant to SB 375, the SCAG reduction targets for per capita vehicular emissions are 8 percent by 2020 and 13 percent by 2035 as shown in Table D.

Table D: Senate Bill 375 Regional Greenhouse Gas Emissions Reduction Targets

Metropolitan Planning Organization	By 2020 (percent)	By 2035 (percent)
San Francisco Bay Area	10	19
San Diego	15	19
Sacramento	7	19
Central Valley/San Joaquin	6-13	13-16
Los Angeles/Southern California	8	19

Source: California Air Resources Board (2018).

Executive Order B-30-15 (2015). Governor Jerry Brown signed Executive Order B-30-15 on April 29, 2015, which added the immediate target of:

- Greenhouse gas emissions should be reduced to 40 percent below 1990 levels by 2030.

All State agencies with jurisdiction over sources of greenhouse gas emissions were directed to implement measures to achieve reductions of greenhouse gas emissions to meet the 2030 and 2050 targets. CARB was directed to update the AB 32 Scoping Plan to reflect the 2030 target, and therefore, is moving forward with the update process. The mid-term target is critical to help frame the suite of policy measures, regulations, planning efforts, and investments in clean technologies and infrastructure needed to continue reducing emissions.

Senate Bill 350 (2015) Clean Energy and Pollution Reduction Act. Senate Bill 350 (SB 350) signed by Governor Jerry Brown on October 7, 2015, updates and enhances AB 32 by introducing the following set of objectives in clean energy, clean air, and pollution reduction for 2030:

- Raise California's renewable portfolio standard from 33 percent to 50 percent; and
- Increasing energy efficiency in buildings by 50 percent by the year 2030.

The 50 percent renewable energy standard will be implemented by the California Public Utilities Commission for the private utilities and by the California Energy Commission for municipal utilities. Each utility must submit a procurement plan showing it will purchase clean energy to displace other non-renewable resources. The 50 percent increase in energy efficiency in buildings must be achieved through the use of existing energy efficiency retrofit funding and regulatory tools already available to state energy agencies under existing law. The addition made by this legislation requires state energy agencies to plan for, and implement those programs in a manner that achieves the energy efficiency target.

Senate Bill 32, California Global Warming Solutions Act of 2016, and Assembly Bill 197. In summer 2016 the Legislature passed, and the Governor signed, SB 32, and Assembly Bill 197 (AB 197). SB 32 affirms the importance of addressing climate change by codifying into statute the greenhouse gas emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in Governor Brown's April 2015 Executive Order B-30-15. SB 32 builds on AB 32 and keeps us on the path toward achieving the State's 2050 objective of reducing emissions to 80 percent below 1990 levels, consistent with an Intergovernmental Panel on Climate Change (IPCC) analysis of the emissions trajectory that would stabilize atmospheric greenhouse gas concentrations at 450 parts per million CO_2e and reduce the likelihood of catastrophic impacts from climate change.

The companion bill to SB 32, AB 197, provides additional direction to CARB related to the adoption of strategies to reduce greenhouse gas emissions. Additional direction in AB 197 meant to provide easier public access to air emissions data that are collected by CARB was posted in December 2016.

Senate Bill 100. On September 10, 2018, Governor Brown signed SB 100, which raises California's RPS requirements to 60 percent by 2030, with interim targets, and 100 percent by 2045. The bill also establishes a state policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045. Under the bill, the state cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

Executive Order B-55-18. Executive Order B-55-18, signed September 10, 2018, sets a goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." Executive Order B-55-18 directs CARB to work with relevant state agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. The goal of carbon neutrality by 2045 is in addition to other statewide goals, meaning not only should emissions be reduced to 80 percent below 1990 levels by 2050, but that, by no later than 2045, the remaining emissions be offset by equivalent net removals of CO_2e from the atmosphere, including through sequestration in forests, soils, and other natural landscapes.

Title 24, Building Standards Code and CALGreen Code. In November 2008, the California Building Standards Commission established the California Green Building Standards (CALGreen) Code, which sets performance standards for residential and nonresidential development to reduce environmental impacts and encourage sustainable construction practices. The CALGreen Code addresses energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality. The CALGreen Code was most recently updated in 2016 to include new mandatory measures for residential as well as nonresidential uses; the new measures took effect on January 1, 2017.

Cap and Trade. The development of a cap-and-trade program was included as a key reduction measure of the CARB AB 32 Climate Change Scoping Plan. The cap-and-trade program will help put California on the path to meet its goal of reducing GHG emissions to 1990 levels by 2020 and ultimately achieving an 80 percent reduction from 1990 levels by 2050. The cap-and-trade emissions trading program developed by CARB took effect on January 1, 2012, with enforceable compliance obligations beginning January 1, 2013. The cap-and-trade program aims to regulate GHG emissions from the largest producers in the State by setting a statewide firm limit, or cap, on allowable annual GHG emissions. The cap was set in 2013 at approximately 2 percent below the emissions forecast for 2020. In 2014, the cap declined approximately 2 percent. Beginning in 2015 and continuing through 2020, the cap has been declining approximately 3 percent annually. CARB administered the first auction on November 14, 2012, with many of the qualified bidders representing corporations or organizations that produce large amounts of GHG emissions, including energy companies, agriculture and food industries, steel mills, cement companies, and universities. On January 1, 2015, compliance obligation began for distributors of transportation fuels, natural gas, and other fuels. California is working closely with British Columbia, Ontario, Quebec, and Manitoba through the Western Climate Initiative to develop harmonized cap-and-trade programs that will deliver cost-effective emission reductions. Two lawsuits have been filed against cap-and-trade, but the cap-and-trade program will be implemented as is until further notice.[1]

SETTING

Attainment Status

The CARB is required to designate areas of the state as attainment, nonattainment, or unclassified for all State standards. An *attainment* designation for an area signifies that pollutant concentrations did not violate the standard for that pollutant in that area. A *nonattainment* designation indicates

[1] CARB. 2014. Cap and Trade Program. Website: http://www.arb.ca.gov/cc/capandtrade/capandtrade.htm (accessed March 2019).

that a pollutant concentration violated the standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria. An *unclassified* designation signifies that data do not support either an attainment or nonattainment status. The CCAA divides districts into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category.

The USEPA designates areas for O_3, CO, and NO_2 as either does not meet the primary standards, or cannot be classified, or better than national standards. For SO_2, areas are designated as does not meet the primary standards, does not meet the secondary standards, cannot be classified, or better than national standards.

Table E provides a summary of the attainment status for the Basin with respect to NAAQS and CAAQS.

Table E: Attainment Status of Criteria Pollutants in the South Coast Air Basin

Pollutant	State	Federal
O_3 1 hour	Nonattainment	Extreme Nonattainment
O_3 8 hour	Nonattainment	Extreme Nonattainment
PM_{10}	Nonattainment	Attainment/Maintenance
$PM_{2.5}$	Nonattainment	Serious Nonattainment
CO	Attainment	Attainment/Maintenance
NO_2	Attainment	Attainment/Maintenance
SO_2	N/A	Attainment/Unclassified
Lead	Attainment	Attainment[1]
All others	Attainment/Unclassified	Attainment/Unclassified

Source: South Coast Air Quality Management District (2018).
Notes:
[1] Except in Los Angeles County.
CARB = California Air Resources Board
CO = carbon monoxide
N/A = not applicable
NO2 = nitrogen dioxide
O_3 = ozone
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
SO_2 = sulfur dioxide

Existing Climate and Air Quality

Air quality in Long Beach is affected by various emission sources (e.g., mobile and industry) as well as atmospheric conditions (e.g., wind speed, wind direction, temperature, and rainfall). The combination of topography, low mixing height, abundant sunshine, and emissions from the second largest urban area in the United States gives the Basin some of the highest pollutant concentrations in the country.

The annual average temperature varies throughout the Basin, ranging from the low- to middle-60s, measured in °F. With a more pronounced oceanic influence, coastal areas, including the City of Long Beach, show less variability in annual minimum and maximum temperatures than inland areas. The monthly average maximum temperature in Long Beach ranges from 65.2°F in January to 80.7°F in August. The monthly average minimum temperature ranges from 44.8°F in January to 62.1°F in

August.[1] January is typically the coldest month, and July and August are typically the warmest months in this area of the Basin.

The majority of annual rainfall in the Basin occurs between November and April. Summer rainfall is minimal and is generally limited to scattered thunderstorms in coastal regions and slightly heavier showers in the eastern portion of the Basin and along the coastal side of the mountains. The monthly average rainfall in Long Beach typically varies from 2.88 inches in January to 0.03 inch in August with an annual total of 12.72 inches. Patterns in monthly and yearly rainfall totals are unpredictable due to fluctuations in the weather.

The Basin experiences a persistent temperature inversion (increasing temperature with increasing altitude) as a result of the Pacific high, which is the semi-permanent high-pressure area of the north Pacific Ocean and is the dominating factor in California weather. This inversion limits the vertical dispersion of air contaminants, holding them relatively near the ground. As the sun warms the ground and the lower air layer, the temperature of the lower air layer approaches the temperature of the base of the inversion (upper) layer until the inversion layer finally breaks, allowing vertical mixing with the lower layer. This phenomenon is observed in mid-afternoon to late afternoon on hot summer days, when the smog appears to clear up suddenly. Winter inversions frequently break by midmorning.

Winds in Long Beach blow predominantly from the west–northwest, with relatively low velocities.[2] Wind speeds in Long Beach average between 7 miles per hour (mph) and 4 mph. Summer wind speeds average slightly higher than winter wind speeds. Low average wind speeds, together with a persistent temperature inversion, limit the vertical dispersion of air pollutants throughout the Basin. Strong, dry, north or northeasterly winds, known as Santa Ana winds, occur during the fall and winter months and disperse air contaminants. The Santa Ana conditions tend to last for several days at a time.[3]

The combination of stagnant wind conditions and low inversions produces the greatest pollutant concentrations. On days of no inversion or high wind speeds, ambient air pollution concentrations are the lowest. During periods of low inversions and low wind speeds, air pollutants generated in urbanized areas are transported predominantly onshore into Riverside and San Bernardino Counties. In the winter, the greatest pollution problems are CO and NO_X because of extremely low inversions and air stagnation during the night and early morning hours. In the summer, the longer daylight hours and the brighter sunshine combine to cause a reaction between hydrocarbons and NO_X to form photochemical smog or ozone.

Air Quality Monitoring Results

Air quality monitoring stations are located throughout the nation and are maintained by the local air pollution control district and State air quality regulating agencies. The SCAQMD, together with the CARB, maintains ambient air quality monitoring stations in the Basin. The air quality monitoring

1 Western Regional Climate Center, 2015.
2 Ibid.
3 Ibid.

station closest to and within the project area is the 2425 Webster Street ambient air quality monitoring station in Long Beach, because it monitors the most air pollutant data in the City. The air quality trends from this station are used to represent the ambient air quality in Long Beach.

Pollutant monitoring results for the years 2015 to 2017 at the 2425 Webster Street ambient air quality monitoring station in Long Beach, shown in Table F, indicate that air quality in the vicinity of the City has generally been good. As indicated in the monitoring results, no violations of the federal PM_{10} standard occurred during the 3-year period. The State PM_{10} standard was exceeded six times in 2015, eight times in 2016, and 10 times in 2017. $PM_{2.5}$ levels exceeded the Federal standard three times in 2015 and four times in 2017. Neither State nor Federal 1-hour ozone standards nor the State 8-hour ozone standard were exceeded in the 3-year period. In addition, the CO, SO_2, and NO_2 standards were also not exceeded in this area during the 3-year period.

Existing Setting

The City is mostly developed, consisting of a mix of residential, commercial, medical, institutional, industrial, and open space and recreation uses. These uses currently generate criteria air pollutants from natural gas use for energy, heating and cooking, vehicle trips associated with each land use, and area sources such as landscaping equipment and consumer cleaning products.

Existing City of Long Beach Criteria Air Pollutant Emissions Inventory

Table G identifies the existing criteria air pollutant emissions inventory of the City of Long Beach using emission rates for year 2018 (existing conditions). The inventory is based on demographics in the City. The year 2018 inventory represents the estimated emissions generated by the existing land uses using the baseline year 2018 emission factors for on-road vehicles, energy sources, and area sources. Area emissions refer to emissions occurring from hearths, consumer products, area architectural coatings, and landscaping equipment. Energy use emissions refer to emissions occurring from building electricity and non-hearth natural gas usage.

Multiple Air Toxics Exposure Study IV

The Multiple Air Toxics Exposure Study (MATES) is a monitoring and evaluation study on ambient concentrations of TACs and estimated the potential health risks from air toxics in the Basin. The MATES was aimed at estimating the cancer risk from toxic air pollutant emissions throughout the Basin by conducting a comprehensive monitoring program, an updated emissions inventory of toxic air contaminants, and a modeling effort to fully characterize health risks for those living in the Basin. In 2008, the SCAQMD conducted its third update to the MATES (MATES III). The study concluded that the average carcinogenic risk from air pollution in the Basin is approximately 1,200 in one million. Mobile sources (e.g., cars, trucks, trains, ships, and aircraft) represent the greatest contributors. Approximately 85 percent of the risk is attributed to diesel particulate emissions, approximately 10 percent to other toxics associated with mobile sources (including benzene, butadiene, and formaldehyde), and approximately 5 percent of all carcinogenic risk is attributed to stationary sources (which include industries and other businesses, such as dry cleaners and chrome plating operations).

Table F: Ambient Air Quality at the Long Beach 2425 Webster Street Monitoring Station

Pollutant	Standard	2015	2016	2017
Carbon Monoxide (CO)				
Maximum 1-hour concentration (ppm)		3.3	3.3	3.9
Number of days exceeded:	State: > 20 ppm	0	0	0
	Federal: > 35 ppm	0	0	0
Maximum 8-hour concentration (ppm)		2.2	2.2	2.6
Number of days exceeded:	State: > 9 ppm	0	0	0
	Federal: > 9 ppm	0	0	0
Ozone (O_3)				
Maximum 1-hour concentration (ppm)		0.087	0.079	0.082
Number of days exceeded:	State: > 0.09 ppm	0	0	0
Maximum 8-hour concentration (ppm)		0.067	0.059	0.069
Number of days exceeded:	State: > 0.07 ppm	0	0	0
	Federal: > 0.08 ppm	0	0	0
Coarse Particulates (PM_{10})				
Maximum 24-hour concentration ($\mu g/m^3$)		80.0	75.3	79.3
Number of days exceeded:	State: > 50 $\mu g/m^3$	6	8	10
	Federal: > 150 $\mu g/m^3$	0	0	0
Annual arithmetic average concentration ($\mu g/m^3$)		31.5	31.9	33.9
Exceeded for the year:	State: > 20 $\mu g/m^3$	Yes	Yes	Yes
	Federal: > 50 $\mu g/m^3$	No	No	No
Fine Particulates ($PM_{2.5}$)[1]				
Maximum 24-hour concentration ($\mu g/m^3$)		54.6	29.3	55.3
Number of days exceeded:	Federal: > 35 $\mu g/m^3$	3	0	4
Annual arithmetic average concentration ($\mu g/m^3$)		10.8	10.3	10.9
Exceeded for the year:	State: > 12 $\mu g/m^3$	No	No	No
	Federal: > 12 $\mu g/m^3$	No	No	No
Nitrogen Dioxide (NO_2)				
Maximum 1-hour concentration (ppm)		0.102	0.076	0.090
Number of days exceeded:	State: > 0.250 ppm	0	0	0
Annual arithmetic average concentration (ppm)		0.020	0.018	0.018
Exceeded for the year:	Federal: > 0.053 ppm	No	No	No
Sulfur Dioxide (SO_2)				
Maximum 1-hour concentration (ppm)		0.038	0.018	0.020
Number of days exceeded:	State: > 0.25 ppm	0	0	0
Maximum 3-hour concentration (ppm)		ND	ND	ND
Number of days exceeded:	Federal: > 0.50 ppm	ND	ND	ND
Maximum 24-hour concentration (ppm)		0.005	0.004	0.003
Number of days exceeded:	State: > 0.04 ppm	0	0	0
	Federal: > 0.14 ppm	0	0	0
Annual arithmetic average concentration (ppm)		0.0009	0.0003	0.0009
Exceeded for the year:	Federal: > 0.030 ppm	No	No	No

Source: CARB, 2018 and USEPA, 2018.

[1] Data taken from the 3648 Long Beach Boulevard monitoring site.

ppm = parts per million

$\mu g/m^3$ = micrograms per cubic meter;

ND = No data. There was insufficient (or no) data to determine the value.

Table G: Existing City of Long Beach Regional Criteria Air Pollutant Emissions Inventory

Sector	Criteria Air Pollutant Emissions (lbs/day)					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Existing Year 2018						
Transportation (2018 emission factors)[1]	4,123	38,622	8,474	85	1,827	541
Energy: Residential[2]	83	838	357	7	58	58
Energy: Commercial + Industrial[2]	24	106	89	1	7	7
Energy: Public Facilities/Institutional[2]	7	65	55	0	5	5
Area Source: Residential[3]	8,837	2,990	46,580	82	5,478	5,478
Area Source: Commercial + Industrial[3]	952	1	1	0	1	1
Area Source: Public Facilities/Institutional[3]	295	0	1	0	0	0
Total Emissions for Existing Land Uses	**14,321**	**42,621**	**55,556**	**174**	**7,377**	**6,091**

Source: Compiled by LSA (March 2019).

Notes:

1 EMFAC2017 based on daily vehicle miles traveled (VMT) provided by LSA Associates, Inc.

2 Energy use calculated using CalEEMod version 2016.3.2

3 Estimated using CalEEMod version 2016.3.2. Area source emissions include landscaping and consumer product emissions. Various industrial and commercial processes (e.g., manufacturing, dry cleaning) allowed under the Land Use Element would require permitting and would be subject to further study pursuant to SCAQMD Regulation XIII, New Source Review. Because the nature of those emissions cannot be determined at this time and are subject to further regulation and permitting, they are not considered for purposes of this analysis.

CO = carbon monoxide
lbs/day = pounds per day
NO_x = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
SO_X = sulfur oxides
VOC = volatile organic compound

In May 2015, the SCAQMD released the final report of the fourth update (MATES IV). The results showed that the overall monitored risk for excess cancer from a lifetime exposure to ambient levels of air toxics decreased to approximately 418 in one million. Compared to the previous update released in 2008 (MATES III), the monitored excess cancer risks decreased by approximately 65 percent. Approximately 90 percent of the risk is attributed to mobile sources while 10 percent is attributed to TACs from stationary sources, such as refineries, metal processing facilities, gas stations, and chrome plating facilities. The largest contributor to this risk was diesel exhaust, accounting for approximately 68 percent of the air toxics risk. Compared to MATES III, MATES IV found substantial improvement in air quality and associated decrease in air toxics exposure. As a result, the estimated basin-wide population-weighted risk decreased by approximately 57 percent compared to the analysis done for the MATES III time period. For Los Angeles County, MATES III's estimated population-weighted average risk was 951 per million while MATES IV's estimated population-weighted average risk was 415 per million (SCAQMD 2015a). In the project vicinity of Long Beach, the MATES IV interactive map identifies risk to range from 1,150 per million to 2,235 per million.[1]It should be noted that the Office of Environmental Health Hazard Assessment (OEHHA) has updated the methods for estimating cancer risks. The new method includes utilizing higher estimates of cancer potency during early life exposures. There are also differences in the

1 South Coast Air Quality Management District (SCAQMD), 2015. *Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES IV) Interactive Map*. Website: http://www3.aqmd.gov/webappl/OI.Web/OI.aspx?jurisdictionID=AQMD.gov&shareID=73f55d6b-82cc-4c41-b779-4c48c9a8b15b (accessed March 2019).

assumptions on breathing rates and length of residential exposures. When combined, the SCAQMD estimates that risks for a given inhalation exposure level will be about 2.7 times higher using the proposed updated methods identified in MATES IV.[1]

The SCAQMD is in the process of preparing the MATES V, which includes a fixed site monitoring program with ten stations, an updated emissions inventory of toxic air contaminants, and a modeling effort to characterize risk across the Basin. MATES V focuses on the carcinogenic risk from exposure to air toxics but does not estimate mortality or other health effects from particulate exposures. The purpose of the MATES V fixed site monitoring is to characterize long-term regional air toxics levels in residential and commercial areas. To complement and enhance the fixed site monitoring, MATES V efforts will include advanced state-of-the-art monitoring technologies, low-cost sensor networks, and near real-time data and community engagement to conduct enhanced air toxics monitoring at local scales with a focus on EJ communities, especially those near refineries.

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others are, due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardiorespiratory diseases.

Residential areas are also considered sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Other sensitive receptors include retirement facilities, hospitals, and schools. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial, commercial, retail, and office areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent, because the majority of the workers tend to stay indoors most of the time.

METHODOLOGY AND THRESHOLDS

Methodology

A number of modeling tools are available to assess air quality impacts of projects. In addition, certain air districts, such as the SCAQMD, have created guidelines and requirements to conduct air quality analysis. SCAQMD's current guidelines, *CEQA Air Quality Handbook,* (SCAQMD 1993) were followed in the assessment of air quality impacts for the proposed project. The air quality models identified in the document (including an older version of the URBEMIS model) are outdated; therefore, the current reference materials in CalEEMod Version 2016.3.2 model are used to estimate project-related mobile and stationary sources emissions. CalEEMod was developed by the California Air Pollution Control Officers Association for use in estimating emissions from land use

[1] South Coast Air Quality Management District (SCAQMD), 2015. *Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES IV) Interactive Map*. Website: http://www3.aqmd.gov/webappl/OI.Web/OI.aspx?jurisdictionID=AQMD.gov&shareID=73f55d6b-82cc-4c41-b779-4c48c9a8b15b (accessed March 2019).

development projects. This AQIA includes estimated emissions associated with implementation of the project. Criteria pollutants with regional impacts would be emitted by increased vehicle trips, as well as by emissions associated with area sources. Localized air quality impacts, such as higher CO concentrations (CO hot spots) near intersections or roadway segments affected by future development facilitated by approval of the proposed project, would be small and less than significant due to the generally low ambient CO concentrations.

The net increase in pollutant emissions determines the significance and impact on regional air quality as a result of implementation of the proposed project. The results also allow the local government to determine whether the new development that would occur with implementation of the proposed project would deter the region from achieving the goal of reducing pollutants in accordance with the AQMP in order to comply with NAAQS and CAAQS.

Operational Criteria Pollutant Emissions

This AQIA includes an estimate of emissions associated with long-term operation of the development projects that would occur with implementation of the proposed project. Criteria pollutants with regional impacts would be emitted by mobile (indirect) sources and area sources. Utilizing guidance from the SCAQMD for estimating emissions associated with land use development projects, emission factors, inventory data information, and references from CalEEMod were used to calculate the long-term operational emissions associated with implementation of the project. The criteria air pollutant emissions inventory includes the following sectors:

- **Transportation:** Transportation emissions forecasts were modeled for vehicle trips beginning and ending within the City of Long Beach and from external/internal vehicle trips (i.e., trips that either begin or end within the City) using the CARB's EMFAC2017. The estimated Citywide traffic from the proposed project was addressed in the TIA prepared for the project (LSA 2019).
    - Based on the TIA, the existing 2018 Citywide VMT is approximately 9.48 million VMT. These trips are associated with the existing residential development, commercial facilities, industrial facilities, and public facilities/institutional land uses within the City.
    - Under the existing General Plan under future 2040 conditions, VMT is expected to decrease to 8.91 million daily VMT.
    - With implementation of the proposed project, the traffic is estimated to be 9.03 million daily VMT in year 2040 with anticipated buildout including SCAG-projected population and job growth, as well as new housing units both to support population growth and to alleviate overcrowding of existing housing units (such growth is not contemplated under the existing General Plan future 2040 conditions listed above).

  The off-peak VMT is generated by discretionary trips, which the traffic model calculates based on the number of households. In other words, the model assumes that people living in overcrowded housing conditions generate fewer trips to the grocery store than the same number of people living in less-crowded, separate housing. Because the proposed LUE reduces overcrowding compared to existing conditions by providing sufficient housing stock to reduce overcrowding over time, the model estimates that the number of discretionary

trips would increase for residents living in separate units when compared to the number of trips for the same number of people living in one household thereby increasing the off-peak VMT, and subsequently, the total VMT.

The EMFAC2017 emission program was used to estimate emissions associated with the three analysis scenarios. The EMFAC2017 model is the latest version of the emission factor model for on-road traffic. Emission factors representing the vehicle mix for 2018 and 2040 for Los Angeles County were used to estimate emissions. Based on the results of the EMFAC2017 model for subsequent years, emissions would decrease on an annual basis from 2018 onward due to phase out of higher polluting vehicles and implementation of more stringent emission standards that are taken into account in the EMFAC2017 model.

- **Energy and Area Source Emissions:** Non-hearth natural gas use and building electricity for residential and nonresidential land uses in the City was modeled using CalEEMod. The electricity energy use used in the analysis is based on units of kilowatt hours (kWh) per size metric for each land use subtype. The natural gas use used in the analysis is based on units of a thousand British Thermal Units (kBTU) per size metric for each land use subtype.[1] Water use and wastewater generation used in the analysis are based on units of million gallons (Mgal) per size metric for each land use subtype. In addition, solid waste generation used in the analysis is based on the unit of tons per size metric for each land use subtype.

  The total number of units (or 1,000 square foot [ksf]) for each General Plan LUE and UDE land use type were divided by the units per acre (or ksf per acre), then multiplied by the following energy metrics: (a) units of kWh per size metric for each land use subtype for electricity, (b) units of kBTU per size metric for each land use subtype for natural gas consumption, (c) Mgal of water per size metric for each land use subtype for water consumption, (d) Mgal of wastewater per size metric for each land use subtype for wastewater generation, and (e) tons of solid waste per size metric for each land use subtype for solid waste generation.

  CalEEMod was used to estimate criteria air pollutant emissions from consumer products, area architectural coatings, landscaping equipment and light commercial equipment in the City.

Greenhouse Gas Emissions

Greenhouse gas emissions associated with implementation of the proposed project would occur over the short term from construction activities, consisting primarily of emissions from equipment exhaust. There would also be minimal long-term greenhouse gas emissions associated with project-related vehicular trips. Recognizing that the field of global climate change analysis is rapidly evolving, the approaches advocated most recently indicate that lead agencies should calculate, or estimate, emissions from vehicular traffic, energy consumption, water conveyance and treatment, waste generation, construction activities, and any other significant source of emissions within the planning area. The GHG emissions inventory includes the following sectors:

[1] The electricity and natural gas usage factors were modeled by land use type to the equivalent of 1 acre (e.g., three single-family dwelling units per acre, 16 low-rise apartment units per acre, 38 mid-rise apartment units per acre, and 43,560 square feet of commercial land use per acre).

- **Transportation:** On-road mobile sources, including Citywide vehicle trips to and from land use development projects, and pass through traffic on freeways and arterials will result primarily in emissions of CO_2, with minor emissions of CH_4 and N_2O. Citywide, VMT per capita is anticipated to decline in the future as a result of previous planning efforts and is anticipated to decline further due to the elements of the 2016 SCAG RTP/SCS. The traffic analysis prepared for the project indicates VMT in Long Beach would be reduced from 9,482,252 VMT per day in the existing condition to 9,028,327 VMT with the proposed LUE/UDE (a 9 percent decrease). However, VMT during off-peak times would increase slightly with the LUE as compared to the existing LUE for the horizon year. These off-peak VMT are generated by discretionary trips, which the traffic model calculates based on the number of households. In other words, the model assumes that people living in overcrowded housing conditions generate fewer trips to the grocery store than the same number of people living in less-crowded, separate housing. Because the LUE reduces overcrowding compared to the previous land use distribution, the number of discretionary trips would increase thereby increasing the off-peak VMT, and subsequently, the total VMT for the horizon year compared to the no project 2040 scenario. The existing VMT per household is 56.9 per day, which is anticipated to decline in the future to 49.9 VMT per day under the no project scenario. The efficiency of the distribution of land uses in the LUE would reduce this further to 46.1 VMT per day per household (a 19 percent decrease from existing conditions).
- **Energy:** The most significant GHG emission from natural gas usage will be CH_4. Electricity usage by future land use developments will result primarily in emissions of CO_2.
- **Waste:** Disposal of solid waste will result in emissions of CH_4 from the decomposition of waste at landfills coupled with CO_2 emission from the handling and transport of solid waste.
- **Water/Wastewater:** Indirect usage of electricity for water and wastewater conveyance will result primarily in emissions of CO_2.
- **Area Sources:** The future use of hearths, consumer products, area architectural coatings, landscaping equipment and light commercial equipment will result primarily in emissions of CO_2, with minor emissions of CH_4 and N_2O. **Industrial sources of emissions that require a permit from the SCAQMD are not included in the City's emissions inventory**: Life-cycle emissions are also not included in this analysis because not enough information is available for the proposed project and therefore they would be too speculative.

Thresholds of Significance for Air Quality

Based on *Guidelines for the Implementation of California Environmental Quality Act*, Appendix G, PRC Sections 15000–15387, a project would normally be considered to have a significant effect on air quality if the project would violate any AAQS, contribute substantially to an existing air quality violation, expose sensitive receptors to substantial pollutant concentrations, or conflict with adopted environmental plans and goals of the community in which it is located.

In addition to the NAAQS and CAAQS, there are daily emissions thresholds for construction and operation of a proposed project in the Basin. The Basin is administered by the SCAQMD, and guidelines and emissions thresholds established by the SCAQMD in its *CEQA Air Quality Handbook* are used in this analysis. Emission thresholds were established based on the attainment status of the

Basin with regard to air quality standards for specific criteria pollutants. The attainment concentration standards were set at a level that protects public health with an adequate margin of safety; therefore, the emission thresholds are regarded as conservative in determining an individual project's contribution to health risks.

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

AQ-1 Conflict with or obstruct implementation of the applicable air quality plan.

AQ-2 Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard.

AQ-3 Expose sensitive receptors to substantial pollutant concentrations.

AQ-4 Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

CEQA generally does not require analysis or mitigation of the impact of existing environmental conditions on a project, including a project's future users or residents. However, as with other laws and regulations enforced by other agencies that protect public health and safety, the City, as the lead agency, has authority other than CEQA to institute policies that aim to protect public health and safety. Policies that aim to address the impact of existing environmental conditions on future projects have been included in the LUE plan and will be implemented on a case-by-case basis through the discretionary review process.

South Coast Air Quality Management District Thresholds

The analysis of the proposed project's air quality impacts follows the guidance and methodologies recommended in SCAQMD's "CEQA Air Quality Handbook" and the significance thresholds on SCAQMD's website.[1] CEQA allows the significance criteria established by the applicable air quality management or air pollution control district to be used to assess impacts of a project on air quality. The SCAQMD has established thresholds of significance for regional air quality emissions for construction activities and project operation.

Regional Significance Thresholds

The SCAQMD has adopted regional construction and operational daily emissions thresholds to determine a project's daily and cumulative impact on air quality in the Basin. Specifically, these thresholds gauge whether a project would significantly contribute to a nonattainment designation based on the mass emissions generated. Table H lists the SCAQMD regional significance thresholds.

[1] SCAQMD's Air Quality Significance Thresholds are current as of March 2015 and can be found at http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2.

Table H: South Coast Air Quality Management District Construction and Operational Significance Thresholds

Air Pollutant	Construction Phase (lbs/day)	Operational Phase (lbs/day)
VOCs	75	55
CO	550	550
NO_X	100	55
SO_X	150	150
PM_{10}	150	150
$PM_{2.5}$	55	55

Source: SCAQMD (2015c).
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
ROCs = reactive organic compounds
SCAQMD = South Coast Air Quality Management District
SO_X = sulfur oxides

CO Hotspots

Areas of vehicle congestion have the potential to create pockets of CO called hot spots. These pockets have the potential to exceed the State 1-hour standard of 20 parts per million (ppm) or the 8-hour standard of 9 ppm. Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to AAQS is typically demonstrated through an analysis of localized CO concentrations. Hot spots are typically produced at intersections, where traffic congestion is highest because vehicles queue for longer periods and are subject to reduced speeds. Typically, for an intersection to exhibit a significant CO concentration, it would operate at level of service (LOS) E or worse without improvements.[1]

Health Risk Thresholds

Whenever a project would require use of chemical compounds that have been identified in SCAQMD Rule 1401, placed on the CARB air toxics list pursuant to AB 1807, or placed on the USEPA's National Emissions Standards for Hazardous Air Pollutants, a health risk assessment is required by the SCAQMD. Table I lists the SCAQMD's TAC incremental risk thresholds for operation of a project. Residential, commercial, and office uses do not use substantial quantities of TACs, so these thresholds are typically applied to new industrial projects. Although not officially adopted by the SCAQMD, these thresholds are also commonly used to determine air quality land use compatibility of a project with major sources of TACs within 1,000 ft of a proposed project.

Table I: SCAQMD Toxic Air Contaminants Incremental Risk Thresholds

Maximum Incremental Cancer Risk	≥ 10 in 1 million
Cancer Burden (in areas ≥ 1 in 1 million)	> 0.5 excess cancer cases
Hazard Index (project increment)	≥ 1.0

Source: SCAQMD (2015b).
SCAQMD = South Coast Air Quality Management District

[1] California Department of Transportation (Caltrans). 1997, December. Transportation Project-Level Carbon Monoxide Protocol. UCD-ITS-RR-97-21. Prepared by the Institute of Transportation Studies, University of California, Davis.

Thresholds for Localized Significance

SCAQMD published its *Final Localized Significance Threshold Methodology* in June 2003, recommending that all project-level air quality analyses include an assessment of both construction and operational impacts on the air quality of nearby sensitive receptors. For this plan level programmatic document, it is not possible to determine whether the scale and phasing of future individual projects under the LUE/UDE would result in the exceedance of the localized emissions thresholds and contribute to known health effects. Therefore, in accordance with the SCAQMD methodology, localized significance thresholds (LSTs) analysis can only be conducted at a project level and quantification of LSTs is not applicable for this program-level environmental analysis.

Thresholds of Significance for Greenhouse Gas Emissions

CEQA Guidelines for GHG

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment related to GHG if it would:

GHG-1 Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

GHG-2 Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

For purposes of this analysis, as the horizon year for the proposed project is 2040, the per service population emissions rate is evaluated to a year 2040 efficiency target. As part of the City's CAAP, although not yet adopted, a GHG Emission Reduction Target Options Memo was prepared in August 2018 and was updated in May 2019 based on more recent data and direction from the Long Beach Mayor and City Council (see Appendix B). The GHG Emission Reductions Target Options Memo provides the supporting documentation needed as substantial evidence to support the use of the identified targets for significance analysis of a GHG threshold. The Memo identifies three target options that could be used for the CAAP. Although another target option may be formally adopted, target Option D "Local Emissions Source-Based Intensity Targets", has been identified by the City and its CAAP Scientific Working Group as the preferable target because it represents per capita and per service population[1] emissions efficiency targets for Long Beach based on the sub-set of statewide emissions sectors that are included in City's CAAP GHG emissions inventory. This target aligns with the most current guidance from the California Air Resources Board (CARB) and the Governor's Office of Planning and Research (OPR) in how it is tailored to match the emissions sectors included locally in the City's inventory. Target Option D consists of a 2040 per capita efficiency target of 2.79 metric tons (MT) of carbon dioxide equivalent (CO_2e) per year per capita (or MT CO_2e/yr/capita); or expressed another way, 1.92 MT of CO_2e per year per service population (or MT CO_2e/yr/SP). Consistent with the CAAP, this efficiency target will be used for purposes of determining project significance. This metric is appropriate in that it would achieve per capita

[1] "Per capita" refers to total citywide emissions divided by the total number of residents in the City. "Per service population" refers to total citywide emissions divided by the number of employees and the number of residents in the planning area.

emissions that go beyond the State's reduction goals, and would be consistent with the requirements of the Global Covenant of Mayors.

The total GHG emissions associated with the 2040 With Project Scenario can be divided by the total service population associated with the anticipated General Plan build out to determine whether the proposed project would result in a significant GHG impact.

Consistency with the Statewide GHG Reduction Targets

The per service population efficiency targets are based on the 2040 reduction targets established for the CAAP and are consistent with the State's target reductions of 40 percent below 1990 levels by 2030 and the State's 2050 GHG target.[1] The following threshold is the applicable GHG threshold for the proposed project: 2040 GHG efficiency target of 1.92 MT CO_2e/yr/SP if the community GHG emissions exceed this per service population efficiency target, GHG emissions would be considered potentially significant in the absence of mitigation measures.

IMPACTS, COMPLIANCE MEASURES, AND MITIGATION MEASURES

This section identifies the air quality and GHG impacts associated with implementation of the proposed project. This section also identifies compliance measures and mitigation measures that would be required by the project.

Air Quality Impacts

This air quality evaluation was prepared in accordance with CEQA requirements to determine if significant air quality impacts are likely to occur in conjunction with future development that would be accommodated by the proposed project.

It is noted that the SCAQMD thresholds for operational emissions are designed for analysis of individual development projects, not for a long-range planning program such as the proposed project, which will be implemented over a long period of time (i.e., 20 years or more) and covers the entire City. In order to quantify the level of emissions associated with individual development projects, specific information regarding the size and type of development and the location of receptors would be needed. Emissions associated with the operation of individual projects, depending on project type and size, could exceed project-specific thresholds established by the SCAQMD.

The following impact analysis addresses project related impacts. The applicable thresholds are identified in brackets after the impact statement.

[1] AECOM, 2019. City of Long Beach Climate Action Adaptation Plan GHG Emissions Reduction Target Options Memo #2 – 2045 Carbon Neutrality. May.

Impact No. 1: The proposed project would be consistent with the SCAQMD Air Quality Management Plan as the anticipated General Plan build out scenario (year 2040) would match the 2016 SCAG population and employment estimates. [Threshold AQ-1]

Clean Air Plan Impact Analysis

CEQA requires that general plans be evaluated for consistency with the AQMP. A consistency determination plays an important role in local-agency project review by linking local planning and individual projects to the AQMP. It fulfills the CEQA goal of informing decision makers of the environmental effects of the project under consideration early enough to ensure that air quality concerns are fully addressed. It also provides the local agency with ongoing information as to whether they are contributing to the clean-air goals in the AQMP. Projects that are consistent with the local general plan are considered consistent with the air quality-related regional plan. There are two key indicators of consistency:

- **Indicator 1:** Whether the project would result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the AAQS or emission reductions in the AQMP.
- **Indicator 2:** Whether the project would exceed the assumptions in the AQMP. The AQMP strategy is, in part, based on projections from local general plans.

Indicator 1: The proposed project involves long-term growth associated with anticipated build out of the City and therefore, emissions of criteria pollutants associated with future development anticipated under the project could contribute emissions of PM_{10}, $PM_{2.5}$, NO_X, and VOCs, which could affect attainment of the AAQS. Future development facilitated under the proposed project would be required to comply with CARB motor vehicle standards, SCAQMD regulations for stationary sources and architectural coatings, Title 24 energy efficiency standards, and the proposed LUE/UDE goals and policies. Additionally, future projects would be required to comply with existing City policies and regulations, as well as the proposed LUE/UDE goals and policies, in order to further reduce air quality impacts.

As noted above, citywide VMT per capita is anticipated to decline in the future as a result of previous planning efforts and is anticipated to decline further due to the elements of the 2016 SCAG RTP/SCS. The traffic analysis prepared for the project indicates VMT in Long Beach will be reduced from 9,482,252 per day in the existing condition to 9,028,327 with the proposed project (a 9 percent decrease). However, VMT during off-peak times increases slightly in the horizon year with the LUE as compared to the existing LUE. These off-peak VMT are generated by discretionary trips, which the traffic model calculates based on the number of households. In other words, the model assumes that people living in overcrowded housing conditions generate fewer trips to the grocery store than the same number of people living in less-crowded, separate housing. Because the proposed LUE reduces overcrowding compared to existing conditions by providing sufficient housing stock to reduce overcrowding over time, the number of discretionary trips would increase for residents living in separate units compared to the number of trips for the same number of people living in one household (the model again assumes that people living in overcrowded conditions take discretionary trips together whereas that same number of people in separate units, the model

assumes, would take separate trips) thereby increasing the off-peak VMT, and subsequently, the total VMT. In terms of household VMT, the existing VMT per household is 56.9 per day, which is anticipated to decline in the future to 49.9 per day in 2040 without the Land Use Element. The efficiency of the distribution of land uses in the Land Use Element would reduce household VMT further to 46.1 VMT per day per household (a 19-percent decrease from existing conditions).

The State of California has concurrent goals of reducing VMT and increasing housing supply to improve affordability and reduce overcrowding. The proposed project would increase the number of housing units to reduce overcrowding in Long Beach. The efficiency of the location of land uses in the LUE (i.e., infill development policies and sites) results in a 19 percent decrease in VMT per household compared to existing conditions. Other measures of VMT, including per capita and absolute terms, decline as well compared to existing conditions. With the proposed project, VMT per capita in Long Beach remains lower than the region as a whole and lower than Los Angeles County. The City believes that the proposed General Plan strikes the appropriate balance between the State's concurrent goals of reducing VMT and increasing housing supply.

Based on the emissions modeling prepared for the project (refer to Table L), emissions under future with project conditions would exceed SCAQMD thresholds for VOC and CO as a result of additional housing anticipated under the proposed project. Therefore, the proposed project would result in a potentially significant impact associated with consistency with the applicable AQMP, and would not be consistent with the AQMP under the first indicator.

Indicator 2: The land-use designations in the City's existing LUE form, in part, the foundation for the emissions inventory for the Basin in the AQMP. The AQMP is based on projections in population, employment, and VMT in the Basin projected by SCAG. SCAG projections for the City LUE and UDE proposed land uses are partially based on the current adopted General Plan. Implementation of the proposed General Plan LUE and UDE would not result in higher population and would not generate employment for the City compared to SCAG forecasts. The proposed project accommodates growth that was estimated based on SCAG projections for population and housing units in the City. As noted, the additional units would serve the existing population that is currently in overcrowded housing and the LUE simply focuses that projected growth near transit. These demographic trends are incorporated into the RTP/SCS compiled by SCAG to determine priority transportation projects and VMT in the SCAG region. Growth projections of the proposed project assume the full anticipated General Plan build out by the year 2040, since there is no schedule for when this development would occur. As a result, the growth projections for the City would be based on SCAG's 2016 RTP/SCS and the associated emissions inventory in SCAQMD's 2016 AQMP. Based on the requirements for consistency with emission control strategies in the AQMP, the project would be consistent with the 2016 AQMP's land use policies aimed at reducing air emissions and would not increase population or employment in the City.

Summary

As described above, although the proposed project would be consistent with the 2016 AQMP because the population is not anticipated to increase with implementation of the project, the additional housing units allowed under the plan would result in VOC and CO emissions that would exceed SCAQMD thresholds. As such, the project would not be consistent with the assumptions in the attainment of the AAQS or emission reductions in the AQMP. The project horizon year 2040 is

designed to accommodate the trend of the current population and employment estimates for the City of Long Beach and would not result in increased population or employment. Instead, the LUE focuses the projected growth near transit and accommodates housing supply based on projected housing need by SCAG combined with documentation in the Assessment of Fair Housing of the need for housing units to address overcrowding. The proposed Land Use Diagram (see Figure 2) would increase density and mixed-use development and would therefore be consistent with regional goals of improving transportation and land-use planning. In addition, the policies of the proposed LUE/UDE would help minimize air pollutant emissions. While the proposed project would be consistent with the 2016 AQMP's land use policies aimed at reducing air emissions and would not increase population or employment in the City, the project would result in additional housing units that would generate VOC and CO emissions above established SCAQMD thresholds. Therefore, based on the requirements for consistency with emission control strategies in the AQMP, the project would conflict with or obstruct the implementation of the AQMP and/or applicable portions of the SIP. This impact would be significant and unavoidable.

Impact No. 2: Construction activities associated with the anticipated General Plan build out scenario (year 2040) would generate short-term emissions that could potentially exceed the SCAQMD's significance thresholds without mitigation incorporated. [Threshold AQ-2]

Construction Impact Analysis

It is important to note that the proposed project is a regulatory document that establishes the framework for growth and development and does not directly result in development projects.

Construction activities associated with development that could occur during implementation of the project would occur through the horizon year 2040, which would cause short-term emissions of criteria air pollutants. The primary source of emissions is the operation of construction equipment. Before development can occur, each discretionary development project is required to be analyzed for conformance with the General Plan, zoning requirements, and other applicable local and State requirements; comply with the requirements of CEQA; and obtain all necessary clearances and permits.

During project construction, the primary sources of particulate matter (PM_{10} and $PM_{2.5}$) emissions are activities that disturb the soil, such as grading and excavation, road construction, and building demolition and construction. The primary source of VOC emissions is the application of architectural coating and off-gas emissions associated with asphalt paving. A discussion of health impacts associated with air pollutant emissions generated by construction activities is included above under *Background: Air Pollutants and Health Effects*.

Information regarding specific development projects is not yet known; however, due to the scale of development activity associated with the anticipated General Plan horizon year 2040 scenario, this analysis assumes that 28,528 new dwelling units will be constructed over the approximately 17-year horizon. Therefore, this analysis assumes that on average approximately 1,640 residential units would be constructed throughout the plan area during a 1-year period. During construction, short-term degradation of air quality may occur due to the release of particulate emissions generated by excavation, grading, hauling, building, and other activities.

Site preparation and project construction would involve demolition, grading, paving, and building activities. Construction-related effects on air quality from the proposed project would be greatest during the site preparation phase due to the disturbance of soils. If not properly controlled, these activities would temporarily generate particulate emissions. Sources of fugitive dust would include disturbed soils at the construction site. Unless properly controlled, vehicles leaving the site would deposit dirt and mud on local streets, which could be an additional source of airborne dust after it dries. PM_{10} emissions would vary from day to day, depending on the nature and magnitude of construction activity, local weather conditions, soil moisture, silt content of soil, and wind speed. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

Construction emissions were estimated using CalEEMod and are summarized in Table J. As indicated above, this analysis assumes that on average approximately 1,640 residential units would be constructed within one year. Other specific construction details are not yet known; therefore, default assumptions (e.g., construction fleet activities, Tier 0 construction equipment) from CalEEMod were used. CalEEMod output sheets are included in Appendix A. Results are summarized in Table J below.

Table J: Construction Emissions in Pounds Per Day

Project Construction	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Maximum (pounds per day)	60.5	46.5	70.8	0.2	18.2	6.4
SCAQMD Threshold	75.0	100.0	550.0	150	150.0	55.0
Exceeds?	**No**	**No**	**No**	**No**	**No**	**No**

Source: LSA (March 2019).

As shown in Table J, on average, the maximum construction emissions associated with the development activity allowed under the project are not anticipated to exceed the SCAQMD's thresholds for VOC, NO_x, CO, SO_x, $PM_{2.5}$, or PM_{10} emissions. However, because the scale and timing of construction activities has not been determined, maximum daily emissions associated with an individual development project associated with project implementation could be significant.

In addition, as previously discussed, the SCAQMD recommends the evaluation of localized air quality impacts to sensitive receptors such as residential land uses in the immediate vicinity of the project site as a result of construction activities. The thresholds are based on standards established by the SCAQMD in the LST Methodology and are measured against construction emissions that occur on a specific project site. These emissions are primarily generated from heavy-duty construction equipment and demolition, grading, and trenching activities. However, the LSTs are applicable to projects at the project-specific level and are not applicable to programmatic documents, such as the LUE/UDE. Construction emissions associated with future individual projects developed under the LUE/UDE, would however, have the potential to cause or contribute to significant localized air quality impacts to nearby residential land uses within the proposed LUE/UDE planning area. Localized construction impacts of future LUE/UDE projects could potentially exceed the LSTs, particularly for construction of areas larger than 5 acres or areas with more intense construction activities. To address this, regulatory measures (e.g., SCAQMD Rule 201 for a permit to operate, Rule 403 for fugitive dust control, Rule 1113 for architectural coatings, Rule 1403 for new source review,

and the CARB's Airborne Toxic Control Measures) are currently in place, and mitigation would be imposed at the project level may include use of special equipment.

It should be noted that the amount of emissions from a project does not necessarily correspond to the concentrations of air pollutants. A dispersion modeling analysis would be necessary to calculate health risk from project implementation. However, since it is not possible to translate the amount of a future specific project's emissions to a particular concentration, it is not possible to calculate the risk factor for a particular health effect at the time of this analysis.

Known health effects related to ozone include worsening of bronchitis, asthma, and emphysema and a decrease in lung function. Particulate matter can also lead to a variety of health effects in people. These include premature death of people with heart or lung disease, heart attacks, irregular heartbeat, decreased lung function, and increased respiratory symptoms. Regional emissions of criteria pollutants contribute to these known health effects. The SCAQMD is the primary agency responsible for ensuring the health and welfare of sensitive individuals and that they are not exposed to elevated concentrations of criteria pollutants in the Basin. To achieve the health-based standards established by the USEPA, the SCAQMD prepares an AQMP that details regional programs to attain the AAQS.

Although the analysis for this project identifies that construction emissions associated with the project would not exceed the SCAQMD's thresholds for VOC, NO_x, CO, SO_x, $PM_{2.5}$, or PM_{10} emissions, it should be noted that not exceeding the SCAQMD's numeric regional mass daily thresholds does not necessarily correspond to less-than-significant health risk impacts to sensitive receptors. This is because the mass daily thresholds are in pounds per day emitted into the air, whereas health effects are determined based on the concentration of emissions in the air at a particular receptor (e.g., parts per million by volume of air, or micrograms per cubic meter of air). State and federal ambient air quality standards were developed to protect the most susceptible population groups from adverse health effects and were established in terms of parts per million or micrograms per cubic meter for the applicable emissions.

For this reason, the SCAQMD developed the LST Methodology. The LST methodology is based on the maximum amount of emissions that could be generated from a project in order for a project to not cause or contribute to an exceedance of the most stringent applicable federal or State ambient air quality standard, and are based on the ambient concentrations of the pollutant and the relative distance to the nearest sensitive receptor. However, as noted above, the LSTs are applicable to projects at the project-specific level and are not applicable to this programmatic planning level document. Localized construction impacts of future LUE/UDE projects could potentially exceed the LSTs, particularly for construction of areas larger than 5 acres or areas with more intense construction activities. Therefore, without mitigation, exceedances of the LSTs could have the potential to cause or exacerbate an exceedance of the AAQS. It should be noted that the AAQS are developed and represent levels at which the most susceptible persons (children and the elderly) are protected. Therefore, the ambient air quality standards are purposefully set low to protect children, elderly, and those with existing respiratory problems.

However, the SCAQMD acknowledges that they have only been able to correlate potential health outcomes for very large emissions sources; specifically, 6,620 pounds per day of NO_x and 89,180

pounds per day of VOC were expected to result in approximately 20 premature deaths per year and 89,947 school absences due to ozone.[1] It is not expected that any future LUE/UDE projects would generate 6,620 pounds per day of NO_x or 89,180 pounds per day of VOC emissions. As identified in Table J above, based on the scale of development associated with the anticipated General Plan build out scenario (year 2040), construction projects would generate an average maximum of 46.5 pounds per day of NO_x and 60.5 pounds per day of VOC.

Therefore, emissions associated with future LUE/UDE projects are not sufficiently high enough to use a regional modeling program to correlate health effects on a basin-wide level.

Current scientific, technological, and modeling limitations prevent the relation of expected adverse air quality impacts to likely health consequences. For this reason, this discussion explains why it is not feasible to provide such an analysis. However, individual projects would still be required to conduct a site-specific localized impact analysis that evaluates potential project health impacts at a project level to immediately adjacent land uses.

The proposed LUE/UDE includes goals regarding land use development and identifies policies designed to reduce emissions of criteria pollutants while protecting public health. These policies include requirements for new development design and construction methods to minimize impacts to air quality; encourage future development to reduce vehicular trips by utilizing compact regional and community-level development patterns; encourage new development to reduce air pollution by incorporating a mixture of uses within the City that encourage people to walk, bicycle, or use public transit; minimize land use conflicts that expose people to significant amounts of air pollution; support transportation management programs that reduce the use of single-occupancy vehicles; and encourage the use of low-emission vehicles and equipment to improve air quality and reduce GHG emissions. While existing City policies and regulations and proposed LUE/UDE goals and policies are intended to minimize impacts associated with nonattainment criteria pollutants, a list of potential Best Management Practices (BMP) and compliance measures are outlined in Compliance Measure CM AQ-1. Compliance with these measures will ensure that the intended environmental protections are achieved. These BMP measures are identified for future project developments that may be implemented under the proposed project that would require environmental evaluation under CEQA. Additionally, Mitigation Measure AQ-1 is identified to require the preparation of project-specific technical assessments evaluating construction-related air quality impacts to further ensure that construction-related emissions are reduced to the maximum extent feasible for projects that require environmental evaluation under CEQA. However, as stated above, since the combination, number, and size of projects that could be under construction at any one time are unknown, in an abundance of caution, this impact is considered to be significant and unavoidable.

Impact No. 3: The anticipated General Plan build out scenario (year 2040) would generate long-term emissions that may potentially exceed the SCAQMD's regional significance thresholds that would cumulatively contribute to the nonattainment designations of the Basin. [Threshold AQ-2]

[1] Supreme Court of California, 2015. *Sierra Club, Revive the San Joaquin, and League of Women Voters of Fresno, Plaintiffs and Appellants, v. County of Fresno, Defendant and Despondent, and Friant Ranch, L.P., Real Part in Interest and Despondent.* April.

Regional Emissions Impact Analysis

It is important to note that the proposed project is a regulatory document that establishes the framework for growth and development and does not directly result in development. Before development can occur, each future discretionary development project would be analyzed for conformance with the General Plan, zoning requirements, and other applicable local and State requirements; comply with the requirements of CEQA; and obtain all necessary clearances and permits.

The proposed project guides growth and development within the City of Long Beach by designating land uses in the proposed Land Use Plan and through implementation of its goals and policies.

New development would result in air pollutant emissions in the City and contribute to the overall emissions inventory in the Basin. A discussion of health impacts associated with air pollutant emissions generated by operational activities is included in the *Air Pollutants and Health Effects* discussion above.

City of Long Beach Emissions Inventory. Table K summarizes the emissions inventory for the City in year 2018 (with and without future year 2040 emission factors), year 2040 without the proposed project, and under the proposed project (horizon year 2040). Table L provides a summary of the emissions and a comparison of the various scenarios to the SCAQMD thresholds in order to determine significance. Methodology for the analysis is described in the methodology section above. The analysis findings indicate that implementation of the proposed project would result in an overall decrease in criteria air pollutant emissions as compared to existing conditions (year 2018). This decrease is primarily attributed to the difference in vehicle emissions between existing conditions and future land use development associated with the anticipated General Plan buildout scenario (year 2040), and at the same time, vehicle emissions per mile would also decrease. The scenarios evaluated for this analysis included the following:

- **Existing Conditions 2018.** This scenario is considered the CEQA baseline analysis. Data inputs included existing VMT data modeled with emission factors for 2018, current household units and estimated commercial square footage within the City using current building efficiency standards.
- **Existing Conditions 2018 (with 2040 Emission Factors).** This scenario was evaluated using existing VMT and demographic data, with emission factors and building standards for 2040. Because the future decrease in emissions is associated with the overall decrease in VMT and reduction in vehicle emission rates that would occur with or without the project, this scenario holds the emission factors constant for the year 2040 to account for regulatory changes such as Title 24 building code standards and vehicle fuel efficiency standards. Applying the 2040 emission factors to year 2018 conditions allows the existing conditions scenario, as well as the Proposed Project Anticipated Buildout Year 2040 scenario, to both reflect efficiency standards equally. This is the No Project scenario for purposes of determining CEQA significance.
- **Future Year 2040 No Project.** This scenario evaluated the change in VMT and demographics that would occur under the existing General Plan for the year 2040 conditions. This data is

presented for disclosure purposes only and was not used in the assessment of project impacts under CEQA.

- **Proposed Project Anticipated Build Out Year 2040.** This scenario evaluated the anticipated build out of the proposed project, including 2040 with project VMT data, and reflects the increase in housing units anticipated under the plan.

The SCAQMD regional operational emission thresholds are evaluated based on the total emissions that may result from development that may occur with implementation of the anticipated General Plan build out scenario (year 2040).

Table K: City of Long Beach Regional Criteria Air Pollutant Emissions Inventory

Sector	Criteria Air Pollutant Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Existing Conditions Year 2018						
Transportation (2018 Emission Factors)[1]	4,123	38,622	8,474	85	1,827	541
Energy: Residential[2]	83	838	357	7	58	58
Energy: Commercial + Industrial[2]	24	106	89	1	7	7
Energy: Public Facilities/Institutional[2]	7	65	55	0	5	5
Area Source: Residential[3]	8,837	2,990	46,580	82	5,478	5,478
Area Source: Commercial + Industrial[3]	952	1	1	0	1	1
Area Source: Public Facilities/Institutional[3]	295	0	1	0	0	0
Total Emissions for Existing Year 2018 Land Uses	**14,321**	**42,621**	**55,556**	**174**	**7,377**	**6,091**
Existing Conditions Year 2018 with Future Year 2040 Emission Factors (CEQA No Project Scenario)						
Transportation (2040 Emission Factors)[1]	1,614	17,538	3,555	34	1,757	136
Energy: Residential[2]	69	838	357	8	49	49
Energy: Commercial + Industrial[2]	11	107	90	1	7	7
Energy: Public Facilities/Institutional[2]	7	65	55	0	5	5
Area Source: Residential[3]	4,859	2,359	12,278	13	211	211
Area Source: Commercial + Industrial[3]	952	1	1	0	1	1
Area Source: Public Facilities/Institutional[3]	295	0	1	0	0	0
Total Emissions for Existing Year 2018 Land Uses with 2040 Emission Factors	**7,808**	**20,908**	**16,337**	**56**	**2,030**	**409**
Future Year 2040 No Project (Provided for Informational Purposes Only)						
Transportation (2040 emission factors)1	1,516	16,473	3,340	32	1,651	127
Energy: Residential 2	72	888	378	8	51	51
Energy: Commercial + Industrial2	30	163	137	1	10	10
Energy: Public Facilities/Institutional2	7	68	57	0	5	5
Area Source: Residential3	5,135	2,524	13,085	13	224	224
Area Source: Commercial + Industrial3	1,219	1	1	0	1	1
Area Source: Public Facilities/Institutional3	307	0	1	0	0	0
Total Emissions for Future Year 2040 Existing General Plan (No Project)	**8,287**	**20,117**	**16,998**	**56**	**1,943**	**420**
Proposed Project Anticipated Buildout Year 2040						
Transportation (2040 emission factors)[1]	1,537	16,698	3,385	33	1,673	129
Energy: Residential [2]	75	954	406	9	53	53
Energy: Commercial + Industrial[2]	30	163	137	1	10	10
Energy: Public Facilities/Institutional[2]	7	68	57	0	5	5
Area Source: Residential[3]	5,493	2,759	14,203	15	242	242
Area Source: Commercial + Industrial[3]	1,219	1	1	0	1	1
Area Source: Public Facilities/Institutional[3]	307	0	1	0	0	0
Total Emissions for Proposed Project Anticipated Buildout Year 2040	**8,668**	**20,644**	**18,190**	**58**	**1,986**	**442**

Source: Compiled by LSA Associates, Inc. (2019).

[1] EMFAC2017 based on daily vehicle miles traveled (VMT) provided by LSA Associates, Inc.

[2] Electricity and Natural gas usage data estimated using CalEEMod version 2016.3.2.

[3] Estimated using CalEEMod. Area source emissions include emissions from consumer products and landscaping. Various industrial and commercial processes (e.g., manufacturing, dry cleaning) allowed under the Land Use Element would require permitting and would be subject to further study pursuant to SCAQMD Regulation XIII, New Source Review. Because the nature of those emissions cannot be determined at this time and are subject to further regulation and permitting, they are not considered for purposes of this analysis.

CARB = California Air Resources Board
CO = carbon monoxide
GHG = greenhouse gas
lbs/day = pounds per day
NO_X = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
SCAQMD = South Coast Air Quality Management District
SO_X = sulfur oxides
VOC = volatile organic compound

Table L: City of Long Beach Regional Criteria Air Pollutant Emissions Summary and Comparison

Scenario	Criteria Air Pollutant Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Total Existing Year 2018	14,321	42,621	55,556	174	7,377	6,091
Total Existing Year 2018 (with Future Year 2040 Emission Factors)	7,808	20,908	16,337	56	2,030	409
Total Future Year 2040 No Project	8,287	20,117	16,998	56	1,943	420
Total Proposed Project Anticipated Buildout Year 2040	8,668	20,644	18,190	58	1,986	442
Project Comparison to Existing Year 2018 Baseline Conditions						
Change in Emissions for Proposed Project Anticipated Buildout Year 2040 from Existing Year 2018	-5,653	-21,977	-37,366	-116	-5,391	-5,649
SCAQMD Regional Significance Threshold	55	55	550	150	150	55
Significant?	**No**	**No**	**No**	**No**	**No**	**No**
Project Comparison to Future Year 2040 No Project (2040 No Project- For Disclosure Purposes only)						
Change in Emissions for Proposed Project Anticipated Buildout Year 2040 from Future Year 2040 No Project	381	527	1,193	2	43	22
SCAQMD Regional Significance Threshold	55	55	550	150	150	55
Significant?	**Yes**	**Yes**	**Yes**	**No**	**No**	**No**
Project Comparison to Baseline Conditions using 2040 Emission Factors (Basis for CEQA Significance Determination)						
Change in Emissions for Proposed Project Anticipated Buildout Year 2040 from Existing Year 2018 (with Future Year 2040 Emission Factors)	860	-264	1,853	2	-44	33
SCAQMD Regional Significance Threshold	55	55	550	150	150	55
Significant?	**Yes**	**No**	**Yes**	**No**	**No**	**No**

Source: Compiled by LSA (2019).

[1] EMFAC2017 based on daily vehicle miles traveled (VMT) provided by LSA.

[2] Electricity and Natural gas usage data estimated using CalEEMod version 2016.3.2.

[3] Estimated using CalEEMod. Area source emissions include emissions from consumer products and landscaping. Various industrial and commercial processes (e.g., manufacturing, dry cleaning) allowed under the Land Use Element would require permitting and would be subject to further study pursuant to SCAQMD Regulation XIII, New Source Review. Because the nature of those emissions cannot be determined at this time and are subject to further regulation and permitting, they are not considered for purposes of this analysis.

CalEEMOD = California Emissions Estimator Model
CARB = California Air Resources Board
CO = carbon monoxide
lbs/day = pounds per day
LUE/UDE = Land Use Element/Urban Design Element
NO_X = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
SCAQMD = South Coast Air Quality Management District
SO_X = sulfur oxides
VOC = volatile organic compound

As shown in Table L, emissions associated with the anticipated General Plan build out scenario would not exceed the daily SCAQMD regional thresholds for VOC, NO_X, PM_{10}, and $PM_{2.5}$, and CO in 2040 when compared to the Existing conditions 2018 scenario. However, as noted above, the decrease in emissions is associated with the overall decrease in VMT and reduction in vehicle emission rates that would occur with or without the project. Therefore, an analysis was conducted to evaluate the change in emissions associated with the project holding the emission factors constant for the year 2040 (Existing Conditions 2018 with 2040 Emission Factors). This analysis indicates that VOC (an O_3 precursor emission) and CO emissions would exceed the SCAQMD thresholds under this scenario as a result of the additional housing anticipated to be constructed under the project.

As shown in Table L, regional emissions of VOC and CO associated with anticipated buildout of project implementation would exceed the SCAQMD project level VOC and CO emission thresholds. The scale of individual project level emissions that would result under implementation of the LUE has not been determined. Therefore, in order to present conservative assumptions, the air quality impacts associated with future operation of individual projects that may occur with implementation of the proposed project, when measured against daily regional thresholds, are assumed to be potentially significant. Therefore, Mitigation Measure AQ-2 is identified and requires the preparation of project-specific technical assessments evaluating operational-related air quality impacts to further ensure that operational-related emissions are reduced to the maximum extent feasible for projects that require environmental evaluation under CEQA. Despite implementation of Mitigation Measure AQ-2, and in an abundance of caution, the potential regional criteria pollutant emissions impact associated with the operation of the proposed project would remain significant and unavoidable.

Implementation of the proposed LUE policies would help further reduce air pollutant emissions as many of the policies promote an increase in concepts and designs that would increase walking, bicycling, and use of public transit, which would contribute to reduced VMT. The proposed LUE includes the following Strategies and Policies that would result in a reduction in air emissions:

- **Strategy No. 1:** Support sustainable urban development patterns.
    - **LU Policy 1-1:** Promote sustainable development patterns and development intensities that use land efficiently and accommodate and encourage walking.
    - **LU Policy 1-3:** Require sustainable design strategies to be integrated into public and private development projects.
    - **LU Policy 1-4:** Require electric vehicle charging stations to be installed in new commercial, industrial, institutional, and multiple-family residential development projects. Require that all parking for single-unit and two-unit residential development projects be capable of supporting future electric vehicle supply equipment.
    - **LU Policy 1-6:** Require that new building construction incorporate solar panels, vegetated surface, high albedo surface, and/or similar roof structures to reduce net energy usage and reduce the heat island effect.
    - **LU Policy 1-7:** Encourage neighborhood-serving retail, employment, and entertainment destinations in new mixed-use projects to create local, walkable daily trip destinations.
- **Strategy No. 11:** Create healthy and sustainable neighborhoods.
    - **LU Policy 11-2:** Provide for a wide variety of creative, affordable, and sustainable land use solutions to help resolve air, soil, and water pollution, energy consumption, and resource depletion issues.
    - **LU Policy 11-5:** Ensure neighborhoods are accessible to open spaces, parks, trails, and recreational programs that encourage physical activity and walkability.

Future development under the proposed project would also be required to demonstrate compliance with the AQMP, the SIP, the CARB motor vehicle standards, the SCAQMD regulations for stationary sources and architectural coatings, the Title 24 energy efficiency standards, and the proposed LUE/ UDE goals and policies. Because implementation of the proposed project would result in an increase in overall criteria air pollutant emissions from existing conditions (assuming 2040 emission factors s), the cumulative air quality impact associated with the proposed project would be significant. Mitigation is required but would not reduce impacts to a less than significant level.

Construction During Project Operation

It is possible that construction of residential units allowed under the plan would be underway while other units constructed under the plan are operational. Since the project is a programmatic level document and specific projects that would be developed under the plan are unknown at this time, the precise combination of emissions that would occur is unknown. However, as a worst-case scenario, Table M presents the average construction emissions along with the horizon year 2040 project emissions. As shown in Table M, full implementation of the development envisioned under the project, when combined with average daily construction emissions, as identified above, would not exceed the daily emission thresholds. The emission reduction associated with reduced VMT and increased fuel efficiency standard would offset the average annual maximum construction emissions. Combined emissions would be below the significance threshold established by the SCAQMD for daily project emissions.

Table M: Combined Annual Construction and Operational Emissions

Sector	Criteria Air Pollutant Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Average Maximum Daily Construction Emissions	61	47	71	0	18	6
2040 Net Reduction in Emissions over Existing Conditions	-5,653	-21,977	-37,366	-116	-5,391	-5,649
Total Annual Emissions: Construction and Operation	**-5,592**	**-21,930**	**-37,295**	**-116**	**-5,373**	**-5,643**
SCAQMD Regional Significance Threshold	55	55	550	150	150	55
Significant?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by LSA Associates, Inc. (2019).
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
SCAQMD = South Coast Air Quality Management District
SO_X = sulfur oxides
VOC = volatile organic compound

Impact No. 4: The anticipated General Plan build out scenario (year 2040) may expose sensitive receptors to substantial concentrations of criteria air pollutants and toxic air contaminants. [Threshold AQ-3]

Toxic Air Contaminant Impact Analysis

Various industrial and commercial processes (e.g., manufacturing and dry cleaning) allowed under the proposed project would be expected to release TACs. Industrial land uses, such as chemical processing facilities, chrome-plating facilities, dry cleaners, and gasoline-dispensing facilities, have

the potential to be substantial stationary sources that would require a permit from SCAQMD for emissions of TACs. Emissions of TACs would be controlled through permitting issued by SCAQMD and would be subject to further study and health risk assessment prior to the issuance of any necessary air quality permits under SCAQMD Rule 1401. Since it is not possible to determine the amount of TAC concentrations at the time of this analysis, it is not possible to calculate the risks for a particular health effect within the proposed planning area. The proposed project is a programmatic project and until specific future projects are proposed, the associated TAC emissions cannot be determined or modeled at this time. Future development projects subject to environmental review under CEQA would be required to analyze potential TAC emissions and include mitigation as appropriate.

In addition to stationary/area sources of TACs, commercial and industrial operations could generate a substantial amount of diesel particulate matter emissions from off-road equipment use and truck idling. Diesel particulate matter (DPM) accounts for approximately 84 percent of the excess cancer risk in the Basin.[1] New land uses in the City that use diesel trucks, including trucks with transport refrigeration units, could generate an increase in DPM that would contribute to cancer and noncancer health risk in the Basin. Furthermore, trucks would travel on regional transportation routes throughout the Basin, contributing to near-roadway DPM concentrations. Land use projects are required to comply with AB 2588, SCAQMD Rule 1401, and CARB standards for diesel engines. As stated above, until specific future projects are proposed, the associated emissions cannot be determined or modeled at this time.

It is important to note that the proposed Neo-Industrial Place Type would be used as a buffer between existing industrial and residential neighborhoods. Future industrial developments pursuant to the proposed project are part of larger planning areas designated as Neo-Industrial Place Types with future zoning that would allow a mix of light industrial and commercial uses and residential use limited to adaptive reuse of existing buildings. Specifically, no heavy industrial, warehousing, and distribution facilities are permitted in this land use category near Cherry Boulevard. Instead, the future industrial uses would likely be linked to and serve more of a supporting role to the office land uses. Fulfillment centers or light manufacturing would be allowed; however, this PlaceType is a clean industrial zone.[2] Based on this supportive role and role as a buffer, the industrial uses would likely be below-average truck trip generators. Thus, no future projects or uses that would generate the level of truck trips expected for heavy industrial and/or warehouses are proposed as part of the proposed project. However, since it is not possible to determine the amount of TAC concentrations at the time of this analysis, it is not possible to calculate the risks for a particular health effect within the planning area.

It is important to note that CEQA generally does not require analysis or mitigation of the impact of existing environmental conditions on a project, including a project's future users or residents. However, as with other laws and regulations enforced by other agencies that protect public health and safety, the City, as the lead agency, has authority other than CEQA to institute policies that aim

1 South Coast Air Quality Management District (SCAQMD), 2008. *Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES III)*. September.

2 A clean industrial zone refers to manufacturing and industrial uses that generate minimal waste and air emissions.

to protect public health and safety. Policies that aim to address the impact of existing environmental conditions on future projects have been included in the LUE plan and will be implemented on a case-by-case basis through the discretionary review process.

Future development consistent with the proposed project would not result in significant emissions of diesel particulate matter. Land development projects are required to comply with AB 2588, SCAQMD Rule 1401, and CARB standards for diesel engines. While existing City policies and regulations and proposed LUE/UDE goals and policies are intended to minimize impacts associated with sensitive receptors, specific measures for future project developments that implement these policies and regulations are proposed to ensure that the intended environmental protections are achieved. Compliance with Policy 16-13, and Mitigation Measure MM AQ-3 would ensure that mobile sources of TACs not covered under SCAQMD permits are considered during subsequent project-level environmental review. Policy 16-13 and Mitigation Measure MM AQ-3 would also require the preparation of project-specific technical health risk assessments evaluating operational-related health risk impacts to ensure that operational-related emissions are reduced to the maximum extent feasible for projects that require environmental evaluation under CEQA. In addition, Policy 16-14 identifies the use of the discretionary review process for residential and other sensitive land uses near freeways or the Port to impose site plan and design features aimed at minimizing exposure to environmental pollution. Therefore, compliance with Policy 16-13, Policy 16-14, and Mitigation Measure AQ-3 would ensure the potential TAC health risk impact associated with the operation of the proposed project would be less than significant.

The amount of emissions from a project does not necessarily correspond to the concentrations of air pollutants. A dispersion modeling analysis is necessary in order to calculate health risk from project implementation. Because the scale of operational activities has not been determined or estimated and in order to present conservative assumptions, the TAC health risk impacts associated with future operation of individual projects that may occur with implementation of the proposed project are assumed to be potentially significant.

Mitigation Measure MM AQ-3 would require the preparation of project-specific technical health risk assessments for certain discretionary large industrial or warehousing uses to evaluate operational-related health risk impacts to further ensure that operational-related emissions are reduced to a less than significant level. However, information regarding specific development projects is not yet known; therefore, cumulative growth within the City could result in potential TAC health risks exceeding 10 in one million and could cumulatively contribute to elevated health risks in the Basin, as identified in the MATES study. This is therefore considered a cumulatively significant and unavoidable impact.

CO Hot Spots

Areas of vehicle congestion have the potential to create pockets of CO called hot spots. These pockets have the potential to exceed the State 1-hour standard of 20 ppm or the 8-hour standard of 9.0 ppm. Localized air quality effects would occur when emissions from vehicular traffic increase in local areas as a result of the proposed project. Vehicular trips associated with the proposed project could contribute to congestion at intersections and along roadway segments in the project vicinity. The primary mobile source pollutant of local concern is CO, which is a direct function of vehicle idling time and thus, traffic flow conditions. CO transport is extremely limited; it disperses rapidly

with distance from the source under normal meteorological conditions. However, under certain extreme meteorological conditions, CO concentrations proximate to a congested roadway or intersection may reach unhealthful levels affecting local sensitive receptors (residents, schoolchildren, the elderly, and hospital patients, etc.). Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service or with extremely high traffic volumes. In areas with high ambient background CO concentration, modeling is recommended to determine a project's effect on local CO levels.

At the time that the 1993 Handbook was published, the Basin was designated nonattainment under the CAAQS and NAAQS for CO. With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations in the Basin and in the State have steadily declined. In 2007, the SCAQMD was designated in attainment for CO under both the CAAQS and NAAQS. As identified within SCAQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan), peak carbon monoxide concentrations in the Basin were a result of unusual meteorological and topographical conditions and not a result of congestion at a particular intersection. A CO hot spot analysis was conducted at four busy intersections in Los Angeles County at the peak morning and afternoon periods and did not predict a violation of CO standards.[1] Under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact. One of the top four worst intersections analyzed for a CO hot spot analysis in Los Angeles County (i.e., Long Beach Boulevard/Imperial Highway)[2] is located approximately 4 miles north of the proposed project. Since the SCAQMD modeled intersections, including this one, do not exceed the CO standards, all intersections within the proposed project with less volume of traffic and under less extreme conditions would not exceed the CO standards. The anticipated General Plan build out scenario (year 2040) would not produce the volume of traffic, as described above, required to generate a CO hot spot. Therefore, implementation of the project would not be expected to result in CO hot spots, and impacts would be less than significant. No mitigation is required.

Impact No. 5: The anticipated General Plan build out scenario (year 2040) may site sensitive land uses in proximity to air pollution sources and may expose sensitive receptors to substantial pollutant concentrations. [Threshold AQ-3]

[1] The four intersections were Long Beach Boulevard/Imperial Highway; Wilshire Boulevard/Veteran Avenue; Sunset Boulevard/Highland Avenue; and La Cienega Boulevard/Century Boulevard. The busiest intersection evaluated (Wilshire Boulevard/Veteran Avenue) had a daily traffic volume of approximately 100,000 vehicles and LOS E in the morning peak hour and LOS F in the evening peak hour.

[2] The intersection of Long Beach Boulevard/Imperial Highway is not within the City limits but is used to represent a condition where there is a high volume of traffic during the a.m. and p.m. peak hours to demonstrate that intersections that are below the volume of traffic at this particular intersection, under less severe atmospheric conditions (i.e., where vertical and horizontal air does not mix), would not result in a CO hot spot.

Sensitive Receptor Impact Analysis

As discussed above, known health effects related to ozone include worsening of bronchitis, asthma, and emphysema and a decrease in lung function. Particulate matter can also lead to a variety of health effects in people. These include premature death of people with heart or lung disease, heart attacks, irregular heartbeat, decreased lung function, and increased respiratory symptoms.

Because placement of sensitive land uses falls outside CARB jurisdiction, the CARB developed and approved the *Air Quality and Land Use Handbook: A Community Health Perspective* to address the siting of sensitive land uses in the vicinity of freeways, distribution centers, rail yards, ports, refineries, chrome-plating facilities, dry cleaners, and gasoline-dispensing facilities. This guidance document was developed to assess compatibility and associated health risks when placing sensitive receptors near existing pollution sources.

The CARB's recommendations for the siting of new sensitive land uses were based on a compilation of recent studies that evaluated data on the adverse health effects from proximity to air pollution sources. The key observation in these studies is that proximity to air pollution sources substantially increases both exposure and the potential for adverse health effects. Respiratory and cardiovascular problems including asthma, lung cancer, and premature death have been associated with living near major roadways and freeways.[1] Children who live near major roadways and freeways have been found to have higher asthma rates and reduced lung function.[2] There are three carcinogenic toxic air contaminants that constitute the majority of the known health risks from motor vehicle traffic: DPM from trucks and benzene and butadiene from passenger vehicles. Exposure to DPM accounts for more than 80 percent of the total carcinogenic risk in the Basin.[3] It has been found that outdoor concentrations are highest near the roadway and decrease with increasing distance downwind of the source.[4] The CARB recommends avoiding siting new sensitive land uses within 500 feet of urban roads with more than 100,000 vehicles per day or rural roads with more than 50,000 vehicles per day.[5]

Table N shows a summary of the other CARB recommendations for siting new sensitive land uses within the vicinity of air pollutant sources. Recommendations in the table are based on data that show that localized air pollution exposures can be reduced by as much as 80 percent by following CARB minimum distance separations.

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1 Balmes, J.R., Earnest, G., Katz, P.P., Yelin, E.E., Eisner, M.D., Chen, H., Trupin, L., Lurmann, F., and Blanc, P.D. 2009. *Exposure to traffic: Lung function and health status of adults with asthma. The Journal of Allergy and Clinical Immunology*, 123(3):626–631.

2 California Air Resources Board (CARB), 2013. Overview of the Children's Health Study. Website: http://www.arb.ca.gov/research/chs/over.htm (accessed March 2019).

3 South Coast Air Quality Management District (SCAQMD), 2008. *Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES III).* September.

4 Zhu, Y., Hinds, W.C., Kim, S., Shen, S., and Sioutas, C. 2002. *Study of ultrafine particles near a major roadway with heavy-duty diesel traffic*. Atmospheric Environment, 36(27):4323-4335.

5 California Air Resources Board (CARB), 2005. *Air Quality and Land Use Handbook: A Community Health Perspective.* April.

Table N: CARB Recommendations for Siting New Sensitive Land Uses

Source/Category	Advisory Recommendations
Freeways and High-Traffic Roads	Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day.
Distribution Centers	Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units [TRUs] per day, or where TRU unit operations exceed 300 hours per week). Take into account the configuration of existing distribution centers and avoid locating residences and other sensitive land uses near entry and exit points.
Rail Yards	Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard. Within 1 mile of a rail yard, consider possible siting limitations and mitigation approaches.
Ports	Avoid siting of new sensitive land uses immediately downwind of ports in the most heavily affected zones. Consult local air districts or the CARB on the status of pending analyses of health risks.
Refineries	Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with local air districts and other local agencies to determine an appropriate separation.
Chrome Platers	Avoid siting new sensitive land uses within 1,000 feet of a chrome plater.
Dry Cleaners using Perchloroethylene	Avoid siting new sensitive land uses within 300 feet of any dry cleaning operation. For operations with two or more machines, provide 500 feet. For operations with three or more machines, consult with the local air district. Do not site new sensitive land uses in the same building with perchloroethylene dry cleaning operations.
Gasoline Dispensing Facilities	Avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50-foot separation is recommended for typical gas dispensing facilities.

Source: CARB (2005).
CARB = California Air Resources Board

Stationary sources of TACs within the City of Long Beach include the stationary sources permitted by the SCAQMD. Various permitted uses are dispersed throughout the City with a high concentration along the Interstate 710 (I-710) corridor.[1] The other sources of TAC within the City are I-710, State Route 91 (SR-91), Interstate 605 (I-605), and Interstate 405 (I-405), which have annual average daily traffic volumes exceeding 100,000. Based on the information in the TIA, there are no local roadways with more than 100,000 average daily vehicle trips in the City (LSA 2019).

If new sensitive receptors were sited within 500 feet of I-710 or I-405 or within the CARB's minimum siting recommendations of other stationary sources, such as the Port of Long Beach, they may be exposed to significant concentrations of air pollutants. As shown in Figure 2, Project PlaceTypes, residential land uses would be permitted along I-710; however, the project would not result in any major areas of change to residential uses proximate to I-405 and I-710. However, residential land uses would also be near or adjacent to areas designated for commercial and industrial uses and to existing permitted TAC sources. Thus, new residential and other sensitive developments could be sited within the buffer distances shown in Table N to TAC sources. CEQA does not generally require an agency to consider the effects of existing environmental conditions on a proposed project's future users or residents.

[1] South Coast Air Quality Management District (SCAQMD), 2014. *Facility Information Details Maps. Pinpoints locations of permitted facilities.*

The proposed LUE includes the following measures that would allow for buffers and other provisions for reducing exposure of sensitive receptors to TAC emissions:

- **Strategy No. 16:** Protect neighborhoods from adverse environmental conditions.
  - **LU Policy 16-1:** Develop public health and environmental protection programs that promote equity and that provide for the fair treatment of all Long Beach residents, regardless of race, age, culture, income, or geographic location.
  - **LU Policy 16-2:** Continue to work with the State, the Port of Los Angeles, and other agencies and organizations to improve air quality around the ports and reduce vessel, truck, rail, and other equipment emissions from port operations.
  - **LU Policy 16-3:** Continue to be an advocate for residential neighborhoods that will be adversely affected by major port-related facility expansion projects.
  - **LU Policy 16-4:** Work with regional agencies, residents, and businesses to preserve established homes, businesses, and open spaces; limit the exposure of toxic pollutants and vehicle noise and minimize traffic issues impacting residential neighborhoods as a result of the I-710 Freeway expansion.
  - **LU Policy 16-13:** Locate sensitive land uses (e.g., residences, schools, and daycare centers) to avoid incompatibilities with recommended buffer distances identified in the most current version of the CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (CARB Handbook). Sensitive land uses that are within the recommended buffer distances listed in the CARB Handbook shall provide enhanced filtration units or submit a Health Risk Assessment (HRA) to the City. If the HRA shows that the project would exceed the applicable thresholds, mitigation measures capable of reducing potential impacts to an acceptable level must be identified and approved by the City.
  - **LU Policy 16-14:** When residential or other sensitive land uses are proposed within proximity to freeways or the Port, use the discretionary review process to impose site plan and design features aimed at minimizing exposure to environmental pollution. For example, locate balconies, outdoor amenity spaces, and when possible occupied portions of buildings as far from the pollution source as a particular site will allow, and require the planting of vegetation and landscape buffering as appropriate.
  - **LU Policy 6-15:** Encourage the design of warehouse and distribution center check-in points that minimize queuing outside of the facility. The design shall also locate truck traffic within the site away from the property line(s) closest to its residential or sensitive receptor neighbors.
  - **LU-M-55:** Continue to develop and implement innovative programs aimed at reducing the air pollutants from port operations (e.g., San Pedro Bay Clean Air Action Plan, Clean Truck Programs, Main Engine Low-Sulfur Fuel Incentive Program, and Shoreside Electricity).

- **North Long Beach Land Use Strategy 1:** Consolidate the intensity of commercial activities into neighborhood-serving nodes, at major corridor crossroads, and in expanded commercial centers.
- **North Long Beach Land Use Strategy 2:** Facilitate the development of new multiple-family housing along corridors between commercial nodes and centers.
- **North Long Beach Land Use Strategy 3:** Buffer heavy industrial activities from residential uses by encouraging Neo Industrial and commercial conversions of some industrial properties.
- **North Long Beach Land Use Strategy 4:** Along Cherry Avenue, Paramount Boulevard, and Downey Avenue, use the Neo Industrial Place Type to develop cleaner and more attractive commercial/industrial properties.
- **North Long Beach Land Use Strategy 5:** Upgrade the quality of development by using design guidelines, new zoning standards, and improved design review processes to ensure that all new buildings, remodels, and additions enhance the neighborhood fabric.
- **North Long Beach Land Use Strategy 6:** Use design guidelines and upgraded zoning standards to further protect established residential districts from the intrusion of commercial activities.
- **North Long Beach Land Use Strategy 7:** Continue to implement the North Long Beach Strategic Guide for Development and North Long Beach Street Enhancement Master Plans (originated under the Redevelopment Agency) including the North Village and North Library plans.
- **North Long Beach Land Use Strategy 8:** Seek opportunities to create open recreation and green areas, and implement the RiverLink Plan for the Los Angeles River.
- **North Long Beach Land Use Strategy 9:** Implement the I-710 Livability Plan.
- **North Long Beach Land Use Strategy 10:** Implement Mobility Element capital improvements for North Long Beach include:
    - Artesia Boulevard Complete Streets Improvements
    - Atlantic Avenue Streetscape Enhancements
    - South Street Signal Improvements
    - Market Street Enhanced Bikeway Access
    - Walnut Avenue Bikeway
- **Bixby Knolls Land Use Strategy 3:** Use design guidelines and upgraded zoning standards to further protect established residential districts from the intrusion of commercial activities.
- **Bixby Knolls Land Use Strategy 4:** Consolidate the intensity of commercial activities along Long Beach Boulevard, Atlantic Avenue, and Cherry Avenue, as depicted on the PlaceTypes Map.
- **Bixby Knolls Land Use Strategy 6:** Seek opportunities to create recreation and green areas, and implement the RiverLink Plan for the Los Angeles River.

- **Bixby Knolls Land Use Strategy 7:** Implement the I-710 Livability Plan for the Long Beach Freeway.
- **Westside and Wrigley Land Use Strategy 2:** Consolidate the intensity of commercial activity along Pacific Coast Highway, Willow Street, Pacific Avenue, and Long Beach Boulevard.
- **Westside and Wrigley Land Use Strategy 5:** Create a landscaped, open space buffer between port-related industrial operations (e.g., ICTF and SCIG railroad yards, trucking and container storage facilities) and neighborhoods on the Westside.
- **Westside and Wrigley Land Use Strategy 6:** Uses allowed in the Edison and Union Pacific Railroad utility rights-of-way must be designed to have minimal dust, noise, traffic, visual and other nuisance impacts on residential neighbors. These properties shall be screened with landscape (green) buffers and proactively maintained.
- **Westside and Wrigley Land Use Strategy 8:** Implement the I-710 Livability Plan for the Long Beach Freeway as part of the I-710 Corridor Project.
- **Westside and Wrigley Land Use Strategy 10:** Improve quality of life, health, and overall livability through the implementation of the West Long Beach Livability Implementation Plan.
- **Eastside Land Use Strategy 10:** Finish the City's urban forestry inventories then develop and implement tree planting, maintenance and greening plans which are coordinated with citywide air quality improvement, greenhouse gas reduction, and local water-saving landscape plans and programs.
- **Central Land Use Strategy 9:** Convert Zaferia's industrial land uses to Neo-Industrial to promote industries that are more environmentally compatible with the residential character of the surrounding neighborhoods.

Goals and policies as outlined above are included in the proposed LUE/UDE that would reduce concentrations of criteria air pollutant emissions and air toxics generated by construction and operation of new developments on nearby residences. Review of projects by SCAQMD for permitted sources of air toxics would ensure that health risks are minimized.

Compliance with Policy 16-13 would ensure that mobile sources of TACs not covered under SCAQMD permits are considered during subsequent project-level environmental review. Policy 16-13 would also require the preparation of project-specific technical health risk assessments evaluating exposure-related health risk impacts to ensure that the risk associated with the development of sensitive receptors would be minimized. In addition, Policy 16-14 identifies the use of the discretionary review process for residential and other sensitive land uses near freeways or the Port to impose site plan and design features aimed at minimizing exposure to environmental pollution. Therefore, compliance with Policy 16-13 and Policy 16-14 would ensure the potential TAC health risk impact associated with the siting of sensitive receptors in areas of potential TAC exposure would be less than significant.

Impact No. 6: Land uses associated with the anticipated General Plan build out scenario (year 2040) would not have the potential to create objectionable odors that could affect a substantial number of people. [Threshold AQ-4]

Odor Impact Analysis

Growth within the City of Long Beach could generate new sources of odors and place sensitive receptors near existing sources of odors. Nuisance odors from land uses in the Basin are regulated under SCAQMD Rule 402, Nuisance, which states:

> *A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.*

Industrial land uses have the potential to generate objectionable odors. Examples of odor-generating industrial projects are wastewater treatment plants, compost facilities, landfills, solid-waste transfer stations, fiberglass manufacturing facilities, paint/coating operations (e.g., auto body shops), dairy farms, petroleum refineries, asphalt batch plants, chemical manufacturing, and food manufacturing facilities. While industrial land uses associated with the proposed project would be required to comply with SCAQMD Rule 402 would prevent an odor nuisance.

Residential and commercial land uses could result in generation of odors such as exhaust from landscaping equipment. However, unlike industrial land uses, these are not considered potential generators of odor that could affect a substantial number of people. Therefore, impacts from potential odors generated from residential and commercial land uses associated with the project are considered less than significant.

During construction activities, construction equipment exhaust and application of asphalt and architectural coatings would temporarily generate odors. Any construction-related odor emissions would be temporary and intermittent. Additionally, noxious odors would be confined to the immediate vicinity of the construction equipment and unlikely to affect a substantial number of people. In addition, by the time such emissions reached any sensitive receptor sites, they would be diluted to well below any level of air quality concern. Furthermore, short-term construction-related odors are expected to cease upon the drying or hardening of the odor-producing materials. Therefore, impacts associated with construction-generated odors are considered less than significant.

While odor sources are present within the City, the odor policies enforced by the SCAQMD, including Rule 402, and City of Long Beach Municipal Code Section 8.64.040, prohibit nuisance odors and identify enforcement measures to reduce odor impacts to nearby receptors. Development of land uses consistent with the proposed project that would have the potential to result in nuisance

odors would be required to comply with these regulations. Therefore, impacts associated with objectionable odors would be less than significant.

Compliance Measures

Compliance Measures are regulations imposed uniformly by the approving agency based on the proposed action taken and are required of the proposed project to reduce its potential environmental effects. Because these features are standard requirements, they do not constitute mitigation measures. The following compliance measure would apply to discretionary projects that might be facilitated by the proposed project with respect to air quality. Compliance Measure AQ-1 includes a list of the types of measures within the existing regulatory framework that future projects may be required to comply with based on their specific impacts.

CM AQ-1: To ensure compliance with South Coast Air Quality Management District (SCAQMD) rules and provide Best Management Practices (BMPs) to reduce air pollutant emissions during construction of future projects facilitated under the proposed project, the construction contractor shall implement the following BMPs during construction, where feasible, to further reduce emissions from construction emissions of VOC, NOx, and particulate matter:

- Install temporary construction power supply meters on site and use these to provide power to electric power tools whenever feasible. If temporary electric power is available on site, forbid the use of portable gasoline- or diesel-fueled electric generators.
- Use of diesel oxidation catalysts and/or catalyzed diesel particulate traps on diesel equipment, as feasible.
- Maintain equipment according to manufacturers' specifications.
- Restrict idling of equipment and trucks to a maximum of 5 minutes (per California Air Resources Board [CARB] regulation).
- Phase grading operations to reduce disturbed areas and times of exposure.
- Avoid excavation and grading during wet weather.
- Limit on-site construction routes and stabilize construction entrance(s).
- Remove existing vegetation only when absolutely necessary.
- Sweep up spilled dry materials (e.g., cement, mortar, or dirt track-out) immediately. Never attempt to wash them away with water. Use only minimal water for dust control.
- Store stockpiled materials and wastes under a temporary roof or secured plastic sheeting or tarp.

- Properly dispose of all demolition wastes. Materials that can be recycled from demolition projects include: metal framing, wood, concrete, asphalt, and plate glass. Unusable, un-recyclable debris should be confined to dumpsters, covered at night, and taken to a landfill for disposal. Hazardous debris such as asbestos must be handled in accordance with specific laws and regulations and disposed of as hazardous waste. For more information on asbestos handling and disposal regulations, contact the SCAQMD.

Level of Significance Before Mitigation Measures

Upon implementation of regulatory requirements and compliance measures, the following air quality impacts may still be potentially significant and require mitigation:

- **Impact No. 2:** Construction activities associated with the anticipated General Plan build out scenario (year 2040) could generate short-term emissions that could potentially exceed the SCAQMD'S significance thresholds.
- **Impact No. 3:** The anticipated General Plan build out scenario (year 2040) would generate long-term emissions that may potentially exceed the SCAQMD's regional significance thresholds and would cumulatively contribute to the nonattainment designations of the Basin.
- **Impact No. 4:** The anticipated General Plan build out scenario (year 2040) may expose sensitive receptors to substantial concentrations of criteria air pollutants and toxic air contaminants.

Air Quality Mitigation Measures

Impact No. 2. Mitigation Measure (MM) AQ-1 would reduce construction period air pollutant emissions of the proposed project.

MM AQ-1 Prior to issuance of any construction permits, future development projects subject to discretionary review under the California Environmental Quality Act (CEQA) shall prepare and submit to the City of Long Beach (City) Department of Development Services Planning Bureau a technical assessment evaluating potential project construction-related air quality impacts. The evaluation shall be prepared in conformance with South Coast Air Quality Management District (SCAQMD) methodology for assessing air quality impacts. If construction-related criteria air pollutants are determined to have the potential to exceed the SCAQMD-adopted thresholds of significance, the Department of Development Services shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during construction activities. These identified measures shall be incorporated into all appropriate construction documents (e.g., construction management plans) submitted to the City and shall be verified by the Department of Development Services. Mitigation measures to reduce construction-related emissions include, but are not limited to:

- Require the following fugitive-dust control measures:
  - Use nontoxic soil stabilizers to reduce wind erosion.
  - Apply water every 4 hours to active soil-disturbing activities.
  - Tarp and/or maintain a minimum of 24 inches of freeboard on trucks hauling dirt, sand, soil, or other loose materials.
- Use construction equipment rated by the United States Environmental Protection Agency (USEPA) as having Tier 4 (model year 2008 or newer) emission limits (when available), or Tier 3 (model year 2006 or newer), applicable for engines between 50 and 750 horsepower.
- Ensure that construction equipment is properly serviced and maintained to the manufacturers' standards.
- Limit nonessential idling of construction equipment to no more than 5 consecutive minutes.
- Using Super-Compliant volatile organic compound (VOC) paints for coating of architectural surfaces whenever possible.[1]
- Suspend all soil disturbance activities when winds exceed 25 mph as instantaneous gusts or when visible plumes emanate from the site and stabilize all disturbed areas.
- Post a publicly visible sign with the telephone number and person to contact at the City of Long Beach regarding dust complaints. The SCAQMD's phone number shall also be visible to ensure compliance with applicable regulations.
- Sweep all streets at least once a day using SCAQMD Rule 1186, 1186.1 certified street sweepers or roadway washing trucks if visible soil materials are carried to adjacent streets. The use of water sweepers with reclaimed water is recommended.
- Apply water three times daily or non-toxic soil stabilizers according to manufactures' specifications to all unpaved parking or staging areas, unpaved road surfaces, or to areas where soil is disturbed. Reclaimed water should be used when available.
- Construction vendors, contractors, and/or haul truck operators shall utilize 2010 model year trucks (e.g., material delivery trucks and soil import/export) that meet CARB's 2010 engine emission standards at 0.01 g/bhp-hr of particulate

[1] A list of Super-Compliant architectural coating manufactures can be found on the SCAQMD website at http://www.aqmd.gov/prdas/brochures/Super-Compliant_AIM.pdf.

(PM) and 0.20 g/bhp-hr of NOx emissions or newer, cleaner trucks. Operators shall maintain records of all trucks associated with the project construction to document that each truck used meets these emission standards, and make the records available for inspection.

Impact No. 3. Mitigation Measure AQ-2 would reduce operational air pollutant emissions of the proposed project.

MM AQ-2 Prior to future discretionary project approval, development project applicants shall prepare and submit to the City Department of Development Services a technical assessment evaluating potential project operation phase-related air quality impacts. The evaluation shall be prepared in conformance with SCAQMD methodology in assessing air quality impacts. If operation-related air pollutants are determined to have the potential to exceed the SCAQMD-adopted thresholds of significance, the Department of Development Services shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during operational activities. The identified measures shall be included as part of the Project Conditions of Approval. Possible mitigation measures to reduce long-term emissions include but are not limited to:

- For site-specific development that requires refrigerated vehicles, the construction documents shall demonstrate an adequate number of electrical service connections at loading docks for plugging in the anticipated number of refrigerated trailers to reduce idling time and emissions.
- Applicants for manufacturing and light industrial uses shall consider energy storage and combined heat and power in appropriate applications to optimize renewable energy generation systems and avoid peak energy use.
- Site-specific developments with truck delivery and loading areas and truck parking spaces shall include signage as a reminder to limit idling of vehicles while parked for loading/unloading in accordance with California Air Resources Board (CARB) Rule 2845 (13 California Code of Regulations [CCR] Chapter 10, Section 2485).
- Require that 240-volt electrical outlets or Level 3 chargers be installed in parking lots that would enable charging of neighborhood electric vehicles (NEVs and/or battery powered vehicles.
- Maximize use of solar energy including solar panels; installing the maximum possible number of solar energy arrays on the building roofs throughout the City to generate solar energy.
- Maximize the planting of trees in landscaping and parking lots.
- Use light colored paving and roofing materials.
- Require use of electric or alternatively fueled street-sweepers with HEPA filters.
- Require use of electric lawn mowers and leaf blowers.

- Utilize only Energy Star heating, cooling, and lighting devices, and appliances.
- Use of water-based or low volatile organic compound (VOC) cleaning products.

Impact No. 4. Mitigation Measure AQ-3 and compliance with Policy 16-13 in the proposed LUE would reduce operational toxic air contaminant (TACs) emissions of the proposed project.

MM AQ-3 Prior to future discretionary approval for projects that require environmental evaluation under CEQA, the City of Long Beach shall evaluate new development proposals for new industrial or warehousing land uses that (1) have the potential to generate 100 or more diesel truck trips per day or have 40 or more trucks with operating diesel-powered transport refrigeration units, and (2) are within 1,000 feet of a sensitive land use (e.g., residential, schools, hospitals, or nursing homes), as measured from the property line of the project to the property line of the nearest sensitive use. Such projects shall submit a Health Risk Assessment (HRA) to the City Department of Development Services. The HRA shall be prepared in accordance with policies and procedures of the most current State Office of Environmental Health Hazard Assessment (OEHHA) and the SCAQMD. If the HRA shows that the incremental health risks exceed their respective thresholds, as established by the SCAQMD at the time a project is considered, the Applicant will be required to identify and demonstrate that best available control technologies for toxics (T-BACTs), including appropriate enforcement mechanisms to reduce risks to an acceptable level. T-BACTs may include, but are not limited to, restricting idling on site or electrifying warehousing docks to reduce diesel particulate matter, or requiring use of newer equipment and/or vehicles. T-BACTs identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site plan.

Level of Significance After Mitigation

While the proposed project would be consistent with the 2016 AQMP's land use policies aimed at reducing air emissions and would not increase population or employment in the City, the project would result in additional housing units that would generate VOC and CO emissions above established SCAQMD thresholds. Therefore, based on the requirements for consistency with emission control strategies in the AQMP, the project would conflict with or obstruct the implementation of the AQMP and/or applicable portions of the SIP. This impact would be significant and unavoidable.

Mitigation Measures MM AQ-1, AQ-2, and AQ-3 would significantly reduce criteria air pollutant emissions generated during construction activities, operational activities, and the effects of TACs. While implementation of MM AQ-1, AQ-2, and AQ-3 would reduce criteria pollutant emissions and emissions of TACs, there currently is not enough information available to quantify emissions during operation of future project-specific development that may occur under the proposed project. Without quantification to guarantee a less than significant finding, future development projects may still exceed the SCAQMD regional significance thresholds, and in an abundance of caution, Impact Nos. 2 through 4 would be considered to remain significant and unavoidable.

As concluded above under the discussion of Impact No. 2, specific BMP measures are included as compliance measures, and are identified to ensure that the intended environmental protections are achieved. These BMP measures are identified for future project developments that may be implemented under the proposed project that require environmental evaluation under CEQA. Additionally, Mitigation Measure AQ-1 is identified requiring the preparation of project-specific technical assessments evaluating construction-related air quality impacts to ensure that construction-related emissions are reduced to the maximum extent feasible for projects that require environmental evaluation under CEQA. With implementation of compliance measures and Mitigation Measure AQ-1, the potential construction emissions impacts associated with future development facilitated by the proposed project would be reduced to the extent feasible. However, since the combination, number, and size of projects that could be under construction at any one time are unknown, this impact is considered significant and unavoidable.

Policy 16-13 would require new sensitive land uses to be evaluated for potential health risks, consistent with CARB and SCAQMD guidance. Compliance with Mitigation Measure AQ-3 would ensure that effects from specific projects are quantified; however, Impact AQ-4 would be significant and unavoidable.

Greenhouse Gas Emission impacts

Existing Conditions

An emissions inventory of the City of Long Beach was conducted based on the existing land uses and is shown in Table O, which identifies existing land uses as residential, commercial, office, and industrial. Criteria air pollutant emissions generated in the City were estimated using EMFAC2017 for VMT and CalEEMod for area and energy sources.

Table O: Existing City of Long Beach Greenhouse Gas Emissions Inventory

Sector	Existing (CEQA Baseline) 2018 GHG Emissions	
	MT CO_2e/yr	**Percent of Total**
Transportation (2018 Emission Factors)[1]	1,394,808	58.9
Area Source - Residential: Landscaping/Consumer Products[2]	40,484	1.7
Area Source - Commercial + Industrial: Landscaping/ Consumer Products[2]	1	0.0
Area Source - Public Facilities/Institutional: Landscaping/ Consumer Products[2]	0	0.0
Energy: Residential [2]	438,967	18.5
Energy: Commercial + Industrial [2]	209,635	8.9
Energy: Public Facilities/Institutional [2]	49,276	2.1
Waste: Residential[2]	58,191	2.5
Waste: Commercial + Industrial[2]	52,512	2.2
Waste: Public Facilities/Institutional[2]	6,060	0.3
Water: Residential[2]	60,441	2.6
Water: Commercial + Industrial[2]	51,291	2.2
Water: Public Facilities/Institutional[2]	5,823	0.3
Existing Year 2018 Emissions Total	**2,367,487**	**-**
Service Population[3]	619,409	-
MT CO_2e/yr/SP	3.8	-

Source: Compiled by LSA Associates, Inc. (2019).
Note: Emissions may not total 100 percent due to rounding.
[1] Transportation on-road mobile source data was calculated using EMFAC2017. Model runs were based on citywide VMT data provided by LSA. VMT per year based on a conversion of VMT × 347 days per year to account for less travel on weekend, consistent with CARB statewide GHG emissions inventory methodology.
[2] Area Source, Energy use, Waste, and Water data were calculated using CalEEMod version 2016.3.2.
[3] Service Population is the sum of the residential population and workplace employees within the City.
CO_2e = carbon dioxide equivalent
GHG = greenhouse gas
LUE = Land Use Element
MT CO_2e/yr = metric tons of carbon dioxide equivalent per year
MT CO_2e/yr/SP= metric tons of carbon dioxide equivalent per year per service population
VMT = vehicle miles traveled

Emissions for the City:[1]

- **Transportation:** Emissions from vehicle trips beginning and ending in the City and from external/internal vehicle trips (i.e., trips that either begin or end in the City).
- **Area Sources:** Emissions generated from lawn and garden, commercial, and construction equipment use in the City.
- **Energy:** Emissions generated from purchased electricity and natural gas consumption used for cooking and heating in the City.
- **Solid Waste Disposal:** Indirect emissions from waste generated in the City.
- **Water/Wastewater:** Emissions from electricity used to supply, treat, and distribute water based on the overall water demand and wastewater generation in the City.

Impact No. 6: The anticipated General Plan build out scenario (year 2040) would result in a substantial reduction in GHG emissions per service population; as such, there would be a substantial decrease in GHG emissions compared to existing conditions. However, despite the project's decrease in GHG emissions, the proposed project GHG emissions would exceed the City's target threshold of 1.92 MT CO_2e per service population per year. [Threshold GHG-1]

Greenhouse Gas Emissions Analysis

This GHG evaluation was prepared in accordance with the requirements of CEQA to determine if significant GHG impacts are likely to occur in conjunction with future development that would be accommodated by the proposed project.

[1] Life-cycle emissions include indirect emissions associated with materials manufacture. However, these indirect emissions involve numerous parties, each of which is responsible for GHG emissions of their particular activity. The California Resources Agency, in adopting the CEQA Guidelines Amendments on GHG emissions, found that life-cycle analysis was not warranted for project-specific CEQA analysis in most situations, for a variety of reasons, including lack of control over some sources and the possibility of double-counting emissions (see Final Statement of Reasons for Regulatory Action, December 2009). Because the amount of materials consumed during the operation or construction of the proposed project is not known, the origin of the raw materials purchased is not known, and manufacturing information for those raw materials are also not known, calculation of life-cycle emissions would be speculative. A life-cycle analysis is not warranted (OPR 2008).

Implementation of the proposed project would contribute to global climate change through direct and indirect emissions of GHG from land uses within the City of Long Beach. The change in GHG emissions is based on the difference between existing land uses and those associated with the proposed implementation of the proposed project. Table O compares the community-wide GHG emissions inventory for the City of Long Beach under existing conditions, the anticipated General Plan build out scenario (year 2040), and year 2040 no project scenario (assuming existing General Plan conditions). Inventories for both 2040 scenarios (project and no project) include reductions from federal and State measures identified in the CARB's Scoping Plan, including the Pavley fuel efficiency standards, LCFS for fuel use (transportation and off-road), and a reduction in carbon intensity from electricity use.

As shown in Table P, GHG emissions associated with the anticipated General Plan build out scenario would exceed the efficiency threshold of 1.92 MT CO_2e/yr/SP in the City in horizon year 2040.

Table P: Anticipated General Plan Build Out 2040 GHG Emissions Inventory

Sectors	Existing 2018 GHG Emissions (MT CO_2e/yr)	Anticipated General Plan 2040 Build Out (MT CO_2e/yr)	2040 No Project (MT CO_2e/yr)	Percent of Total Proposed Project
Transportation (2040 Emission Factors)[1]	1,394,808	890,829	878,821	53.3
Area: Residential[2]	40,484	37,345	34,324	2.2
Area: Commercial + Industrial[2]	1	1	1	0.0
Area: Public Facilities/Institutional[2]	0	1	1	0.0
Energy: Residential[2]	438,967	336,360	315,904	20.1
Energy: Commercial + Industrial[2]	209,635	150,273	150,273	9.0
Energy: Public Facilities/Institutional[2]	49,276	32,366	32,366	1.9
Waste: Residential[2]	58,191	64,066	60,926	3.8
Waste: Commercial + Industrial[2]	52,512	65,529	65,529	3.9
Waste: Public Facilities/Institutional[2]	6,060	6,297	6,297	0.4
Water: Residential	60,441	41,257	38,363	2.5
Water: Commercial + Industrial[2]	51,291	42,764	42,764	2.6
Water: Public Facilities/Institutional[2]	5,823	3,330	3,330	0.2
Emissions Total	**2,367,487**	**1,670,419**	**1,628,900**	N/A
Service Population[3]	619,409	666,150	666,150	N/A
Emissions per Service Population	3.8	2.5	2.4	N/A
Plan-Level Efficiency Threshold	1.92	1.92	1.92	N/A

Source: Compiled by LSA Associates, Inc. (2019).
Note: Emissions may not total 100 percent due to rounding.
[1] Transportation on-road mobile source data was calculated using EMFAC2017. Model runs were based on citywide VMT data. VMT per year based on a conversion of VMT × 347 days per year to account for less travel on weekend, consistent with CARB statewide GHG emissions inventory methodology.
[2] Area Source, energy use, waste, and water data were calculated using CalEEMod version 2016.3.2. Area Sources include landscaping equipment and consumer product use.
[3] Service Population is the sum of the residential population and workplace employees within the City.
CO_2e = carbon dioxide equivalent
GHG = greenhouse gas
MT CO_2e/yr = metric tons of carbon dioxide equivalent per year
N/A = not applicable

On a service population basis, the anticipated General Plan build out scenario (year 2040) would reduce the GHG emissions from 2,367,487 MT CO_2e/yr/SP under existing conditions down to

1,670,419 MT CO_2e/yr/SP under the anticipated General Plan build out scenario (year 2040). Implementation of the proposed project would result in lower GHG emissions within the City in the future year due to the way in which the model calculates non-peak trips for overcrowded households; however, the project would result in higher VMT rates with the project when compared to the 2040 no project scenario (existing General Plan in the future year). Although the GHG emissions per service population would be lower under future year conditions, the emission rate of 2.5 MT CO_2e/yr/SP would exceed the 1.92 MT CO_2e/yr/SP criterion established by the City for purposes of this environmental evaluation.

Implementation of the proposed LUE policies would help further reduce GHG emissions. Many of these policies promote an increase in concepts and designs that would increase walking, bicycling, and use of public transit, which would contribute to reduced VMT. In addition, infill development near public transit would help create sustainable development patterns. The LUE includes the following strategies and policies that would result in further reductions in GHG emissions:

- **Strategy No. 2:** Promote efficient management of energy resources to reduce greenhouse gas emissions and the impacts of climate change by employing a full range of feasible means to meet climate goals.
    - **LU Policy 2-1:** Promote the establishment of local green energy generation projects along with the infrastructure to support such projects.
    - **LU Policy 2-2:** Ensure that long-range planning processes consider impacts of sea level rise and propose mitigation measures.
- **Strategy No. 4:** Attract and invest in green and innovative industries to expand creative employment opportunities.
    - **LU Policy 4-1:** Provide a Land Use Plan that allows a place for green energy development and green businesses.
    - **LU Policy 4-2:** Promote the transition of some heavy industrial and manufacturing sites to creative green and sustainable industries.
- **Strategy No. 20:** Preserve, restore, and protect water bodies, natural areas, and wildlife habitats.
    - **LU Policy 20-8:** Manage and restore land to increase carbon storage and minimize greenhouse gas emissions in a sustainable manner by increasing the City's carbon sinks over time.
        - **LU-M-3:** Consider including development incentives in the Zoning Regulations that allow greater development flexibility if projects include affordable housing; creative open space; cultural amenities; historic preservation or green building elements beyond those required; renewable energy components; and transit, pedestrian and bicycle amenities.
        - **LU-M-8:** Require that all new City building projects and major renovations achieve at least LEED silver certification.

- **LU-M-9:** Require that all new City leases and tenant improvements follow LEED standards. Require energy efficiency standards to be part of all City lease/rental agreements.
- **LU-M-10:** Continue to utilize solar power within public buildings and on public sites, and continue to study means by which solar power can be incorporated into all aspects of municipal services.
- **LU M-11:** Continue to implement the Sustainability Action Plan. Introduce new goals and action measures that promote sustainability, including items related to land use and mobility planning, increasing walking and biking, increasing energy efficiency, reducing greenhouse gases and promoting renewable energy.
- **LU-M-12:** Create innovative renewable energy partnerships and demonstration projects.
- **LU-M-59:** Attract renewable energy and green technology manufacturing companies to establish a presence/office in Long Beach. Facilitate the creation of jobs in the renewable/clean energy sector.
- **LU-M-62:** Continue to implement the Green Recognition Program, which is designed to encourage Long Beach business owners who have implemented sustainable practices to share their success stories and receive recognition for going green.
- **LU-M-63:** Partner with Pacific Gateway Workforce Investment Network's Green Job Corps, California State University at Long Beach, Long Beach City College and other educational organizations, agencies and non-profit organizations to coordinate the creation of a training academy and programs for green jobs.
- **LU-M-64:** Work with Southern California Edison and other utility companies to provide rebates and savings programs for businesses using green technologies or emphasizing green industries.
- **LU-M-65:** Repurpose business development grants and loans for green business development in Long Beach. Encourage technology and manufacturing companies to take advantage of Long Beach green business development opportunities.
- **LU-M-66:** Implement a City green business program that incorporates goals and strategies for waste reduction, energy efficiency, water conservation, green purchasing, and similar strategies.
- **LU-M-67:** Encourage the formation of a local environmental business network to share information and promote green business strategies and best practices.
- **LU-M-68:** Develop a "shop green" program to increase consumer awareness about local green businesses and products so that consumers can easily make green purchasing choices.
- **LU-M-69:** Conduct green business workshops designed to help local businesses go green and showcase local green vendors and products.

- **LU-M-70:** Explore funding opportunities to provide incentives for businesses to make environmental improvements.
- **LU-M-71:** Explore the feasibility of establishing a City Hall liaison to help business owners navigate environmental requirements.
- **LU-M-72:** Explore the feasibility of establishing "Green Zones," a Clean Up Green Up program, or similar, to allow businesses with harsh emissions to "Clean Up" by providing resources and programs through the City and partner agencies. Green Zones are defined as a community-led strategy to transform areas in Long Beach that are overburdened by pollution and inequity into healthy, thriving neighborhoods. Green Zones in Long Beach will reflect the needs, priorities, and issues identified by residents who know their community best. Green Zones will focus on the low-income communities and people of color in West, Central and North Long Beach—who are most impacted by the local pollution—while these equity measures will benefit the entire City.
- **LU-M-73:** Continue to update the City's greenhouse gas (GHG) emissions inventory with the California Climate Action Registry, which will enable the City to better meet future environmental regulations and secure future grant funding for sustainability programs.
- **LU-M-74:** Through the Port of Long Beach, provide Greenhouse Gas Emissions Reduction Grant Program and similar programs aimed at implementing strategies to reduce the impacts of greenhouse gases.
- **LU-M-75:** Continue to implement the 2010 Clean Air Action Plan Update aimed at reducing air pollution emissions from port-related cargo movement.
- **LU-M-76:** Continue to consult with the Port of Los Angeles to reduce emissions from port operations.
- **LU-M-77:** Continue to support/coordinate programs and organizations aimed at improving energy efficiency and reducing greenhouse gas emissions.
- **LU-M-78:** Implement the Technology Advancement Program to identify, evaluate, and demonstrate new and emerging emissions reduction technologies/strategies that could be utilized in future updates to the Clean Air Action Plan.
- **LU-M-79:** Consult with utility companies in promoting and developing renewable energy and emerging greenhouse gas reduction technologies. Identify potential sites within the Regional-Serving Facilities PlaceType to locate such facilities.

- **Eastside Land Use Strategy 10:** Finish the City's urban forestry inventories then develop and implement tree planting, maintenance and greening plans which are coordinated with citywide air quality improvement, greenhouse gas reduction, and local water-saving landscape plans and programs.

Impact No. 7: The proposed project would potentially conflict with plans adopted for the purpose of reducing greenhouse gas emissions. [Threshold GHG-2]

Greenhouse Gas Reduction Plan Consistency Analysis

The following discusses the consistency of the proposed project to the CARB Scoping Plan, and SCAG's 2016 RTP/SCS in addition to the City's Sustainable City Action Plan.

Consistency with the Long-Term Goal of AB 32 and SB 32. The AB 32 Scoping Plan has a range of GHG reduction actions, which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as a cap-and-trade system, and an AB 32 implementation fee to fund the program.

In addition, SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in Executive Order B-30-15. SB 32 builds on AB 32 and keeps us on the path toward achieving the State's 2050 objective of reducing emissions to 80 percent below 1990 levels, consistent with an IPCC analysis of the global emissions trajectory that would stabilize atmospheric GHG concentrations at 450 parts per million CO_2e and reduce the likelihood of catastrophic impacts from climate change.

The companion bill to SB 32, AB 197, provides additional direction to CARB in the following areas related to the adoption of strategies to reduce GHG emissions. Additional direction in AB 197, intended to provide easier public access to air emissions data that are collected by CARB, was posted in December 2016. The measures applicable to the proposed project include energy efficiency measures, water conservation and efficiency measures, and transportation and motor vehicle measures.

As shown in Table O, the community-wide GHG emissions for the anticipated General Plan build out scenario (year 2040) would exceed the City's efficiency target of 1.92 MT CO_2e/yr/SP. The CAAP targets and service population threshold would measure progress in meeting the AB 32 and SB 32 reduction targets.

The proposed project includes various policies that would contribute to reduced GHG emissions. While these policies would contribute to reduced GHG emissions, the City would require assistance from additional federal and State programs and regulations to achieve the long-term GHG emissions goal. Therefore, GHG impacts within the City of Long Beach from the overall growth under the proposed project would need to develop a GHG reduction plan as recommended under *State CEQA Guidelines* Section 15183.5 in order to achieve the long-term GHG reductions goals under AB 32 and SB 32 so that the proposed project would not cumulatively contribute to the long-term GHG emissions in the State. As previously noted, the City is in the process of preparing the CAAP which will identify the GHG reduction measures needed to achieve the targets. The CAAP has been identified as a mitigation measure to reduce GHG impacts associated with growth anticipated under the project.

CARB Scoping Plan. In accordance with AB 32, the CARB developed the Scoping Plan to outline the State's strategy to achieve 1990-level emissions by year 2020. Since adoption of the 2008 and 2017 Scoping Plans, State agencies have adopted programs identified in the Scoping Plan, and the legislature has passed additional legislation to achieve the GHG reduction targets. Statewide

strategies to reduce GHG emissions include the LCFS and changes in the corporate average fuel economy standards (e.g., Pavley I and 2017–2025 CAFE standards). These statewide measures are applicable uniformly throughout the State, and all future developments under the proposed project would be in compliance.

Table Q provides a summary of the statewide strategies and the associated GHG emissions reductions when integrated into the proposed project. In addition to these statewide strategies, the LUE/UDE policies outlined above would also contribute to reducing GHG emissions. Therefore, the proposed project would be consistent with the Scoping Plan, and impacts are considered less than significant.

Table Q: Statewide GHG Emissions Reduction Strategies

Policy/Action	Policy/Implementation Action Description
Circulation/Land Use	
Pavley I	A clean-car standard that reduces GHG emissions from new passenger vehicles (light- to medium-duty) from 2009 through 2016 and is anticipated to reduce GHG emissions from new passenger vehicles by 30 percent in 2016. California implements the Pavley I standards through a waiver granted to California by the U.S. Environmental Protection Agency.
Advanced Clean Car (Pavley II)	A multifaceted approach focused on controlling smog and soot and reducing GHG emissions from passenger vehicles for model years 2015–2025. It is designed to extend beyond Pavley I (i.e., 2016). The program is anticipated to reduce GHG emissions by 12 percent in year 2025.
Low Carbon Fuel Standard (LCFS)	Requires a reduction of 2.5 percent in the carbon intensity of California's transportation fuels by 2015 and of at least 10 percent by 2020. Applies to refiners, blenders, producers, and importers of transportation fuels and uses market-based mechanisms to allow providers to use the most economically feasible methods to reduce emissions during the fuel cycle.
Energy Efficiency and Use	
Title 24 Energy Standards	Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission in June 1977 and are updated triennially to allow for consideration and possible incorporation of new energy-efficiency technologies and methods. Buildings that are constructed in accordance with the current 2016 Building and Energy Efficiency Standards are 46 percent more energy efficient than the 2008 standards as a result of better windows, insulation, lighting, ventilation systems, and other features that reduce energy consumption in homes and businesses.
Title 24 CALGreen	Adopted in 2008 as part of the California Green Building Standards Code. Established planning and design standards for sustainable site development, energy efficiency, water conservation, material conservation, and internal air contaminants.
60 percent RPS	Senate Bill 100 was signed in September 2018 and raises California's RPS requirements to 60 percent by 2030, with interim targets, and 100 percent by 2045. Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. The increase in renewable electricity production will decrease indirect GHG emissions from development projects, because electricity production from renewable sources is generally considered carbon neutral.
Title 20	The 2016 Appliance Efficiency Regulations were adopted by the California Energy Commission and approved by the California Office of Administrative Law in 2016. The regulations include standards for both federally and non-federally regulated appliances.

Source: Compiled by LSA Associates, Inc. (2019).
CALGreen = California Green Building Standards
GHG = greenhouse gas
RPS = Renewable Portfolio Standard

SCAG's 2016 Regional Transportation Plan/Sustainable Communities Strategies. SCAG's 2016 RTP/SCS is a regional growth-management strategy that targets per capita GHG reduction from passenger vehicles and light-duty trucks in the Southern California region. The 2016 RTP/SCS incorporates local land-use projections and circulation networks in city and county general plans. The projected regional development pattern, including locations of land uses and residential densities included in local general plans, when integrated with the proposed regional transportation network identified in the 2016 RTP/SCS, would reduce per capita vehicular travel-related GHG emissions and achieve the GHG reduction per capita targets for the SCAG region of 8 percent per capita from 2005 GHG emission levels by 2020 and 19 percent per capita from 2005 GHG emission levels by 2035. The strategies, programs, and projects outlined in the 2016 RTP/SCS are projected to result in GHG emissions reductions in the SCAG region that meet or exceed these targets. The proposed project and its policies would be consistent with the applicable RTP/SCS goals. Implementation of the LUE/UDE policies would create higher density mixed-use communities. In addition, the proposed project includes various policies that would call for creation of more mixed-use and walkable communities; therefore, the proposed project would contribute to reduced VMT per capita and overall GHG emissions from passenger vehicles. Therefore, the proposed project is consistent with SCAG's 2016 RTP/SCS.

City of Long Beach Sustainable City Action Plan. The Sustainable City Action Plan is a City-adopted plan to guide the City in becoming more sustainable. The plan identifies a wide range of goals and implementation actions to conserve energy and water, reduce solid waste, address global warming, tailor urban design, protect natural habitats, improve transportation options, and reduce risks to human health. Specific goals related to GHG include increasing the use of renewable energy in Long Beach and reducing the City's overall electric load by 10 percent. Other goals include reducing single-occupancy vehicle trips by 10 percent and advancing higher density mixed-use neighborhoods that are bike and pedestrian friendly. The proposed project includes various policies that are and would be consistent with these goals and initiatives of the Sustainable City Action Plan.

Existing Regulations/Compliance Measures: The following list includes State and local regulations and conditions.

- **State**
  - **EO S-3-05 and EO B-30-15:** Greenhouse Gas Emission Reduction Targets
  - **AB 32:** California Global Warming Solutions Act
  - **SB 375:** Sustainable Communities Strategies
  - **AB 1493:** Pavley Fuel Efficiency Standards
  - **Title 20 California Code of Regulations:** Appliance Energy Efficiency Standards
  - **Title 17 California Code of Regulations:** Low Carbon Fuel Standard
  - **AB 1881:** California Water Conservation in Landscaping Act of 2006
  - **SB 1368:** Statewide Retail Provider Emissions Performance Standards
  - **SB 350:** Renewable Portfolio Standards

- **Title 24, Part 6, California Code of Regulations:** Building and Energy Efficiency Standards
- **Title 24, Part 11, California Code of Regulations:** Green Building Standards Code

- **Local**
  - **Green Building Ordinance:** City of Long Beach Municipal Code Title 18, Chapter 18.47, Sections 18.47.010 to 18.47.080

Level of GHG Significance Before Mitigation

Upon implementation of regulatory requirements and compliance measures, the GHG impact would remain significant.

Impact No. 6. The anticipated General Plan build out scenario (year 2040) would result in a decrease in GHG emissions compared to existing conditions. However, the proposed project GHG emissions would not meet the long-term GHG reductions goal under AB 32 and SB 32 reduction targets.

Therefore, mitigation is required.

Mitigation Measures

Impact No. 6. Mitigation Measure GHG-1 would reduce GHG emissions of the proposed project.

MM GHG-1 The City of Long Beach (City) shall develop and adopt a greenhouse gas (GHG) Reduction Plan or Climate Action and Adaptation Plan (CAAP) to ensure that the City continues on a trajectory that aligns with the short-term, interim, and long-term state GHG reduction goals. Within approximately 36 months of adoption of the proposed General Plan Land Use Element (LUE)/Urban Design Element (UDE) project, the City of Long Beach shall prepare and present to the City Council for adoption a CAAP. The CAAP shall identify strategies to be implemented to reduce GHG emissions associated with the City. In addition, the City shall monitor GHG emissions by updating its community-wide GHG emissions inventory every 5 years upon adoption of the initial CAAP. The CAAP will include details on how the reduction programs will be implemented and will designate responsible parties to monitor progress and ensure implementation of the reductions within the CAAP. A monitoring and reporting program shall be included to ensure the CAAP achieves the reduction targets.

Level of Significance After Mitigation

Implementation of the land use strategies contained in the LUE/UDE would reduce emissions to the extent feasible. In addition, Mitigation Measure GHG-1 would require the City to adopt a GHG Reduction Plan or Climate Action and Adaption Plan to ensure that the City meets short- and long-term GHG reduction goals established by the State. While this mitigation measure would serve to reduce GHG emissions associated with build out of the project, additional State-sponsored reduction programs may be required in order to meet the service population threshold set by the CAAP. Because the performance of GHG reduction measures in the CAAP and compliance with future targets cannot be assured at this time, and in an abundance of caution, GHG emission

impacts would remain significant and unavoidable even with implementation of Mitigation Measure GHG-1.

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APPENDIX A

EMISSIONS CALCULATIONS

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EMFAC2017 (v1.0.2) Emission Rates
Region Type: Sub-Area
Region: Los Angeles (SC)
Calendar Year: 2018
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HTSK and RUNLS, g/vehicle/day for IDLEX, RESTL and DIURN

Region	Calendar Ye	Fleet	Vehicle Categ	Fleet Mix	Model Yea	Speed	Fuel	Population	VMT	Trips	ROG_RUNEX	ROG_IDLEX	ROG_STREX	ROG_HOTSOAK	ROG_RUNLOSS	ROG_RESTLOSS	ROG_DIURN	CO_RUNEX	CO_IDLEX	CO_STREX	NOx_RUNEX	NOx_IDLEX	NOx_STREX	SOx_RUNEX	SOx_IDLEX	SOx_STREX	PM10_RUNEX	PM10_IDLEX	PM10_STREX	PM10_PMTW	PM10_PMBW	PM2_5_RUNEX	PM2_5_IDLEX	PM2_5_STREX	PM2_5_PMTW	PM2_5_PMBW	CO2_RUNEX	CO2_IDLEX	CO2_STREX	CH4_RUNEX	CH4_IDLEX	CH4_STREX	N2O_RUNEX	N2O_IDLEX	N2O_STREX
								vehicle/day	miles/day	trips/day	g/mile	g/vehicle/day	g/trip	g/trip	g/vehicle/day	g/trip	g/vehicle/day	g/vehicle/day	g/mile	g/vehicle/day	g/trip	g/mile	g/vehicle/day	g/trip	g/mile	g/vehicle/day	g/trip	g/mile	g/mile	g/mile	g/mile	g/vehicle/day	g/trip	g/mile	g/mile	g/mile	g/mile	g/vehicle/day	g/trip	g/mile	g/mile	g/vehicle/day	g/trip	g/mile	g/mile	g/vehicle/day	g/trip
Los Angeles (SC)	2018	1	LDA	0.54792	Aggregate	Aggregate	Aggregate	GAS	3787140.552	152352408.3	17836906.86	0.024596279	0	0.342830645	0.137953852	0.265818435	0.319778873	0.360541652	1.102129503	0	2.421362218	0.074708419	0	0.248354937	0.003033444	0	0.000600566	0.002046489	0	0.002212067	0.008000002	0.036750011	0.001882095	0	0.002035106	0.002000001	0.015750005	306.5382038	0	60.6888996	0.00571393	0	0.070820159	0.006879264	0	0.029738404
Los Angeles (SC)	2018	1	LDA		Aggregate	Aggregate	DSL	25490.99936	1030226.731	118708.8221	0.0359132	0	0	0	0	0	0	0	0.368665604	0	0	0.168675175	0	0	0.002275742	0	0	0.020087837	0	0	0.008000002	0.036750011	0.019218846	0	0	0.002000001	0.015750005	240.727643	0	0	0.001668099	0	0	0.037839033	0	0
Los Angeles (SC)	2018	1	LDA		Aggregate	Aggregate	ELEC	41946.83649	1607385.571	211903.9032	0	0	0	0.004888026	0	0.007500233	0.022407439	0	0	0	0	0	0	0	0	0	0	0	0	0	0.008000002	0.036750011	0	0	0	0.002000001	0.015750005	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2018	2	LDT1	0.046127	Aggregate	Aggregate	GAS	399738.3858	15417610.87	1824084.367	0.066816785	0	0.557968898	0.287575421	1.003261126	0.681410204	0.859318609	2.4165198	0	2.664186855	0.218463205	0	0.367716099	0.003521636	0	0.000703344	0.003671558	0	0.003475888	0.008000002	0.036750011	0.003377489	0	0.003197703	0.002000001	0.015750005	355.8714154	0	71.07494774	0.014209647	0	0.104585906	0.014330616	0	0.034412107
Los Angeles (SC)	2018	2	LDT1		Aggregate	Aggregate	DSL	375.8082074	9678.848446	1349.673014	0.241553849	0	0	0	0	0	0	0	1.32133576	0	0	1.253808256	0	0	0.004581118	0	0	0.182348282	0	0	0.008000002	0.036750011	0.174459976	0	0	0.002000001	0.015750005	484.5902204	0	0	0.011219715	0	0	0.076170803	0	0
Los Angeles (SC)	2018	2	LDT1		Aggregate	Aggregate	ELEC	980.9928755	31333.39808	4658.79438	0	0	0	0.004888026	0	0.007500233	0.022407439	0	0	0	0	0	0	0	0	0	0	0	0	0	0.008000002	0.036750011	0	0	0	0.002000001	0.015750005	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2018	3	LDT2	0.19933	Aggregate	Aggregate	GAS	1276816.328	50345385.82	5957553.211	0.039345599	0	0.464238335	0.162168464	0.503113055	0.413475933	0.431963381	1.587050645	0	3.149582889	0.1600783	0	0.431234574	0.003929242	0	0.000790369	0.002210024	0	0.002202427	0.008000002	0.036750011	0.0020332	0	0.002026279	0.002000001	0.015750005	397.0611735	0	79.86909573	0.008731553	0	0.09369384	0.011311577	0	0.040988698
Los Angeles (SC)	2018	3	LDT2		Aggregate	Aggregate	DSL	5287.651852	247931.814	26272.04647	0.029314285	0	0	0	0	0	0	0	0.195735159	0	0	0.074508399	0	0	0.003114286	0	0	0.011181948	0	0	0.008000002	0.036750011	0.010698222	0	0	0.002000001	0.015750005	329.4286696	0	0	0.001361592	0	0	0.015781599	0	0
Los Angeles (SC)	2018	3	LDT2		Aggregate	Aggregate	ELEC	4752.691838	171904.9306	24329.14215	0	0	0	0.004888026	0	0.007500233	0.022407439	0	0	0	0	0	0	0	0	0	0	0	0	0	0.008000002	0.036750011	0	0	0	0.002000001	0.015750005	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2018	4	MDV	0.125604	Aggregate	Aggregate	GAS	876388.8226	32040665.85	4042546.609	0.062871652	0	0.607073331	0.178527685	0.531248823	0.478895462	0.480651824	2.044416398	0	3.919297213	0.213226354	0	0.521702302	0.004750238	0	0.000961716	0.002434712	0	0.002523438	0.008000002	0.036750011	0.002243543	0	0.002324838	0.002000001	0.015750005	480.0251165	0	97.18413223	0.012466344	0	0.116117982	0.014258039	0	0.044742624
Los Angeles (SC)	2018	4	MDV		Aggregate	Aggregate	DSL	11707.10339	506720.8207	58056.4086	0.021152698	0	0	0	0	0	0	0	0.300269662	0	0	0.083135422	0	0	0.004040042	0	0	0.008551457	0	0	0.008000002	0.036750011	0.008181525	0	0	0.002000001	0.015750005	427.3550416	0	0	0.00098252	0	0	0.067174261	0	0
Los Angeles (SC)	2018	4	MDV		Aggregate	Aggregate	ELEC	545.0052675	18850.11602	2739.180271	0	0	0	0.004888026	0	0.007500233	0.022407439	0	0	0	0	0	0	0	0	0	0	0	0	0	0.008000002	0.036750011	0	0	0	0.002000001	0.015750005	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2018	5	LHDT1	0.017697	Aggregate	Aggregate	GAS	107338.7882	4057201.89	1599188.009	0.064284008	0.472606031	0.162251187	0.148803142	1.011105342	0.404869808	0.07041006	1.516913022	3.731358827	1.950839505	0.321404718	0.041262481	0.567256507	0.008361074	0.001225685	0.000195223	0.001583328	0	0.00056563	0.008000002	0.076440022	0.001458263	0	0.000522527	0.002000001	0.032760009	844.9104225	123.8589672	19.72779823	0.012485212	0.129815056	0.031749291	0.018693812	0.003254828	0.044468972
Los Angeles (SC)	2018	5	LHDT1		Aggregate	Aggregate	DSL	44862.62848	1981420.14	564315.4291	0.093893609	0.109759705	0	0	0	0	0	0.517701258	0.909745076	0	0.523756199	0.239265247	0	0.004685273	0.001306839	0	0.020326271	0.028530861	0	0.012000003	0.076440022	0.019446966	0.027296628	0	0.003000001	0.032760009	495.6074926	138.2372685	0	0.004361179	0.005098128	0	0.077902596	0.021728974	0	
Los Angeles (SC)	2018	6	LHDT2	0.005953	Aggregate	Aggregate	GAS	17154.32044	620060.9911	255573.8147	0.047598895	0.474430308	0.15869286	0.142735488	1.01099082	0.036921159	0.06482403	1.184562555	3.737591387	1.981857869	0.336043095	0.041451298	0.572985374	0.009601367	0.001416333	0.000219809	0.001400636	0	0.000436195	0.008000002	0.089180026	0.0012879	0	0.000401126	0.002000001	0.038220011	970.2455995	143.1245495	22.21233206	0.01011126	0.130368456	0.031582575	0.020251163	0.003185058	0.043650937
Los Angeles (SC)	2018	6	LHDT2		Aggregate	Aggregate	DSL	18097.2275	772852.4144	227640.3556	0.091145369	0.109759705	0	0	0	0	0	0.49652775	0.909745076	0	2.37394945	2.405978112	0	0.005186609	0.00209023	0	0.020942533	0.029160005	0	0.012000003	0.089180026	0.020036569	0.027898556	0	0.003000001	0.038220011	548.638754	221.1042429	0	0.004233528	0.005098128	0	0.086238372	0.034754508	0	
Los Angeles (SC)	2018	7	MHDT	0.01836	Aggregate	Aggregate	GAS	14396.12617	791158.0454	288037.6924	0.149589542	0.992461032	0.278445654	0.118498013	0.605718009	0.037004072	0.062266245	3.851381398	14.21841844	5.648096471	0.927364533	0.088409882	0.403388298	0.017449466	0.005502067	0.000421575	0.00312759	0	0.006055299	0.012000003	0.130340037	0.001175029	0	0.000606486	0.003000001	0.055860016	1763.318464	560.8709335	42.60141071	0.025263606	0.248480208	0.048202954	0.041602585	0.006717378	0.028248775
Los Angeles (SC)	2018	7	MHDT		Aggregate	Aggregate	DSL	60110.80545	3646765.829	586256.259	0.236853663	0.171871635	0	0	0	0	0	0.766765126	2.494653167	0	4.139673758	10.50516772	0.989863752	0.009921963	0.008533154	0	0.132050845	0.04897772	0	0.012000003	0.130340037	0.126338384	0.046858966	0	0.003000001	0.055860016	1050.220505	903.217756	0	0.011001239	0.007982992	0	0.165080838	0.141973253	0	
Los Angeles (SC)	2018	8	HHDT	0.027618	Aggregate	Aggregate	GAS	79.23283967	5894.676941	1585.290656	1.184193876	0	0.000930233	0.330175788	1.480391394	0.089172766	0.131072864	53.32067059	0	4.419653693	6.639926284	0	1.058365815	0.022786322	0	0.000585488	0.002494107	0	0.002436219	0.020000006	0.061740018	0.002318661	0	0.002286335	0.005000001	0.026460008	2302.623058	0	59.16528552	0.195459072	0	0.000175671	0.196480183	0	0.031893549
Los Angeles (SC)	2018	8	HHDT		Aggregate	Aggregate	DSL	52041.15417	62219984.3	508253.128	0.220262376	4.69241902	0	0	0	0	0.814220738	48.73878275	0	5.591419123	65.09365183	1.372483711	0.015085683	0.101723076	0	0.090757877	0.222178423	0	0.035577992	0.061016256	0.086831732	0.212567083	0	0.008894498	0.026149824	1596.790267	10767.19016	0	0.010230617	0.21795071	0	0.250993193	1.692452383	0	
Los Angeles (SC)	2018	8	HHDT		Aggregate	Aggregate	NG	1909.523466	77453.03375	7412.041519	0.583000451	0.108013051	0	0	0	0	0	12.36738493	19.12666324	0	5.455926832	28.06682507	0	0	0	0	0.010229981	0.081137669	0	0.03600001	0.061740018	0.009787437	0.077627689	0	0.009000003	0.026460008	3586.796413	4353.255106	0	0.647653496	1.411774302	0	0.731191913	0.887439531	0	
Los Angeles (SC)	2018	9	OBUS	0.002341	Aggregate	Aggregate	GAS	4043.618232	184429.6522	80904.71359	0.0991632	0.742619813	0.185157997	0.030759232	0.348457247	0.025239037	0.052013402	2.529969503	5.747565498	3.647031963	0.730406072	0.064759556	0.340094744	0.017526843	0.003838459	0.000277586	0.000835577	0	0.000314599	0.012000003	0.130340037	0.000813323	0	0.00029127	0.003000001	0.055860016	1771.137628	387.8872494	28.05090075	0.02020518	0.194015309	0.033937839	0.033657796	0.005235407	0.025392845
Los Angeles (SC)	2018	9	OBUS		Aggregate	Aggregate	DSL	2873.307461	210110.921	28286.46963	0.306816604	1.812033335	0	0	0	0	0	1.015856834	14.81573714	0	5.280146642	30.40849121	1.113989929	0.01211079	0.029875934	0	0.147596683	0.193356114	0	0.012000003	0.130340037	0.141211716	0.184991614	0	0.003000001	0.055860016	1281.903676	3162.30968	0	0.014250837	0.084164255	0	0.201497406	0.497071044	0	
Los Angeles (SC)	2018	10	SBUS	0.000667	Aggregate	Aggregate	GAS	975.8986724	42036.02377	3903.59469	0.086980635	10.57213551	0.343653967	0.08135931	0.657715911	0.018456686	0.038645161	1.945406934	81.82171241	8.429314518	0.52839883	0.921850164	0.58810051	0.088908756	0.026475772	0.000491982	0.001888307	0	0.000387607	0.008000002	0.744800204	0.001006659	0	0.000356391	0.002000001	0.319200887	900.2552676	2675.452557	49.71616952	0.03724019	2.399938125	0.059205615	0.028814188	0.084133706	0.053232704
Los Angeles (SC)	2018	10	SBUS		Aggregate	Aggregate	DSL	3336.476364	106131.8697	38502.47466	0.132574199	0.340777894	0	0	0	0	0	0.363100487	5.769580923	0	7.986567953	44.98451937	0.702417396	0.011942576	0.034660168	0	0.052466807	0.078659297	0	0.012000003	0.744800213	0.050197116	0.07525653	0	0.003000001	0.319200091	1264.098493	3668.711614	0	0.006157728	0.015828251	0	0.198698679	0.576670376	0	
Los Angeles (SC)	2018	11	UBUS	0.002583	Aggregate	Aggregate	GAS	445.5711954	32229.7446	1782.284782	0.020130789	0	0.514108844	0.089695191	0.52491959	0.019877227	0.024788337	0.395906164	0	7.16828343	0.331037567	0	0.902797148	0.020956827	0	0.000890851	0.000397058	0	0.000164008	0.011341277	0.123561749	0.000365081	0	0.000147489	0.002835319	0.052955035	2117.747325	0	90.02301017	0.005991732	0	0.118646613	0.026778327	0	0.074707557
Los Angeles (SC)	2018	11	UBUS		Aggregate	Aggregate	DSL	31.4305	3221.377108	125.722	0.008071105	0	0	0	0	0	0	0.654281838	0	0	6.107544347	0	0	0.017005534	0	0	0.008980717	0	0	0.008000002	0.036750011	0.032210784	0.072570941	0.008592215	0	0	0.008052696	0.031101832	1798.82236	0	0	0.072856039	0	0	0.282749825	0	0
Los Angeles (SC)	2018	11	UBUS		Aggregate	Aggregate	ELEC	12	1070.403311	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.008000002	0.036750011	0.033480451	0.068677047	0.004987382	0	0	0.008370113	0.02943302	0	0	0	0	0	0	0	0
Los Angeles (SC)	2018	11	UBUS		Aggregate	Aggregate	NG	4012.38417	424964.4125	16049.53668	0.461364512	0	0	0	0	0	0	39.65369676	0	0	3.056261374	0	0	0	0	0	0.005212889	0	0	0.03348045	0.068677047	0.004987382	0	0	0	0.008370113	0.02943302	1965.246805	0	0	7.61030961	0	0	0.400628417	0	0
Los Angeles (SC)	2018	12	MCY	0.004804	Aggregate	Aggregate	GAS	147201.2937	1074478.73	294402.5874	2.730959248	0	1.868857664	0.742985151	2.429743905	1.410990593	2.250057132	20.80258616	0	8.409938491	1.138727208	0	0.262631473	0.002217485	0	0.000606509	0.002155168	0	0.003717294	0.004000001	0.011760003	0.002021772	0	0.00351796	0.001	0.005040001	224.0831644	0	61.28943279	0.390755189	0	0.240412949	0.065785843	0	0.015009232
Los Angeles (SC)	2018	13	MH	0.000944	Aggregate	Aggregate	GAS	18915.51119	186777.7259	1892.30774	0.130072245	0	0.171321536	0.111069405	2.767519249	0.065149306	0.164525848	3.808349043	0	3.340637436	0.606517141	0	0.315066226	0.017394526	0	0.000275889	0.00202536	0	0.000584627	0.012000003	0.130340037	0.001867388	0	0.000541746	0.003000001	0.055860016	1757.766694	0	27.8793767	0.025555544	0	0.036153781	0.033079779	0	0.031356561
Los Angeles (SC)	2018	13	MH		Aggregate	Aggregate	DSL	4631.581386	49488.17588	463.1581386	0.085158361	0	0	0	0	0	0	0.369743826	0	0	0.498567182	0	0	0.009549223	0	0	0.116416766	0	0	0.016000005	0.130340037	0.111380628	0	0	0.004000001	0.055860016	1010.115402	0	0	0.003955443	0	0	0.158776075	0	0
								6933431.057	274269847.4	34613731.89																																			

Table Y: Long Beach VMT

	Existing Base Year	2040 with Old Land Use Element	2040 with Proposed Land Use Element	Percent Change From Old Land Use Element	Percent Change From Existing
Citywide Peak Hour VMT	4,635,625	4,306,500	4,276,489		
Citywide Off-peak VMT	4,846,627	4,600,132	4,751,838		
Citywide Daily VMT	9,482,252	8,906,632	9,028,327		
City Population	466,255	484,485	484,485		
VMT per Capita	19.9	18	18.2		
City Households	163,794	175,500	192,318		
VMT per Household	56.9	49.9	46.1		
Employment	153,154	181,665	181,665		

Source: SCAG Regional Travel Demand Model

2018 Emission Factors

Running Exhaust (RUNEX) emissions
Idle Exhaust (IDLEX) emissions
Start Exhaust (STREX) emissions
Evaporative emissions include four major processes: hot soak, running loss, diurnal (both partial-day and multi-day diurnal), and resting loss

Mobile Operation Emission factors (grams per mile)

Fleet Mix	Percent Fleet mIx	Population per VMT	Trip per VMT	ROG (g/mile)	ROG (pop g/r	ROG (trips g/	CO (g/mile	CO (pop g/	CO (trips g	NOx (g/mi	NOx (pop ı	NOx (trips	SOx (g/mil	SOx (pop ε	SOx (trips g/m	PM10 (g/n	PM10 (poı	PM10 (trip	PM25 (g/n	PM25 (poı	PM25 (trips g/mile)	CO2 (g/mil	CO2 (pop ε	CO2 (trips	CH4 (g/mil	CH4 (pop ε	CH4 (trips	N2O (g/mi	N2O (pop ı	N2O (trips
LDA	0.5554836	0.0248578	0.1170766	0.02459628	0.01691125	0.0874098	1.10213	0	0.283485	0.074708	0	0.029077	0.003033	0	7.03122E-05	0.046797	0.024858	0.000259	0.019632	0	0.000238	306.5382	0	7.105252	0.005714	0	0.008291	0.006879	0	0.003482
LDA	0.0037563	0.0247431	0.1152259	0.0359132	0	0	0.368666	0	0	0.168675	0	0	0.002276	0	0	0.064838	0.024743	0	0.036969	0	0	240.7276	0	0	0.001668	0	0	0.037839	0	0
LDA	0.0058606	0.0260963	0.1318314	0	0.00078048	0.0006444	0	0	0	0	0	0	0	0	0	0.04475	0.026096	0	0.01775	0	0	0	0	0	0	0	0	0	0	0
LDT1	0.0562133	0.0259274	0.1183117	0.06681679	0.03994707	0.2187354	2.41652	0	0.315205	0.218463	0	0.043505	0.003522	0	8.32139E-05	0.048422	0.025927	0.000411	0.021127	0	0.000378	355.8714	0	8.409001	0.01421	0	0.012374	0.014331	0	0.004071
LDT1	3.529E-05	0.0388278	0.1394456	0.24155385	0	0	1.321358	0	0	1.253808	0	0	0.004581	0	0	0.227098	0.038828	0	0.19221	0	0	484.59	0	0	0.01122	0	0	0.076171	0	0
LDT1	0.0001142	0.0313082	0.1486846	0	0.00093636	0.0007268	0	0	0	0	0	0	0	0	0	0.04475	0.031308	0	0.01775	0	0	0	0	0	0	0	0	0	0	0
LDT2	0.1835615	0.0253611	0.1183336	0.0393456	0.0214414	0.1336602	1.587051	0	0.372702	0.160078	0	0.05103	0.003929	0	9.35272E-05	0.04696	0.025361	0.000261	0.019783	0	0.00024	397.0612	0	9.451202	0.008732	0	0.011087	0.011312	0	0.00485
LDT2	0.000904	0.021327	0.1059648	0.02931429	0	0	0.195735	0	0	0.074508	0	0	0.003114	0	0	0.055932	0.021327	0	0.028448	0	0	329.4287	0	0	0.001362	0	0	0.051782	0	0
LDT2	0.0006268	0.0276472	0.1415267	0	0.00082686	0.0006918	0	0	0	0	0	0	0	0	0	0.04475	0.027647	0	0.01775	0	0	0	0	0	0	0	0	0	0	0
MDV	0.1168217	0.0273461	0.1261692	0.06287165	0.02623992	0.1661459	2.044416	0	0.493697	0.213226	0	0.065823	0.00475	0	0.000121339	0.047185	0.027346	0.000318	0.019994	0	0.000293	480.0251	0	12.26165	0.012466	0	0.014651	0.014258	0	0.005645
MDV	0.0018475	0.0231037	0.1145728	0.0211527	0	0	0.30027	0	0	0.083135	0	0	0.00404	0	0	0.053301	0.023104	0	0.025932	0	0	427.355	0	0	0.000983	0	0	0.067174	0	0
MDV	6.873E-05	0.0289126	0.1453137	0	0.00086471	0.0007103	0	0	0	0	0	0	0	0	0	0.04475	0.028913	0	0.01775	0	0	0	0	0	0	0	0	0	0	0
LHDT1	0.0147927	0.0264564	0.3941603	0.06428401	0.01543691	0.5211429	1.516913	0.098718	0.768944	0.321405	0.001092	0.22359	0.008361	3.24E-05	7.69492E-05	0.086023	0.026456	0.000223	0.036218	0	0.000206	844.9104	3.276857	7.775915	0.012485	0.003434	0.012514	0.018694	8.61E-05	0.017528
LHDT1	0.0072243	0.0226417	0.2848035	0.09389361	0.00248514	0	0.517701	0.020598	0	2.523756	0.054174	0	0.004685	2.96E-05	0	0.108766	0.051173	0	0.055207	0.000618	0	495.6075	3.12992	0	0.004361	0.000115	0	0.077903	0.000492	0
LHDT2	0.0022608	0.0276655	0.4121753	0.0475989	0.0159402	0.5409467	1.184563	0.103402	0.816873	0.336043	0.001147	0.23617	0.009601	3.92E-05	9.05998E-05	0.098581	0.027666	0.00018	0.041508	0	0.000165	970.2456	3.959618	9.155374	0.010111	0.003607	0.013018	0.020251	8.81E-05	0.017992
LHDT2	0.0028179	0.0234161	0.2945457	0.09114537	0.00257015	0	0.496528	0.021303	0	2.373949	0.056339	0	0.005187	4.89E-05	0	0.122123	0.052576	0	0.061257	0.000653	0	548.6388	5.17741	0	0.004234	0.000119	0	0.086238	0.000814	0
MHDT	0.0028846	0.0181963	0.364071	0.14958954	0.01986544	0.36504	3.851381	0.258722	2.056308	0.927565	0.001609	0.146862	0.017449	0.000101	0.000153483	0.143616	0.018196	0.000239	0.060035	0	0.000221	1763.318	10.20575	15.50994	0.029264	0.004521	0.017549	0.041603	0.000122	0.010285
MHDT	0.0132963	0.0164833	0.1607606	0.23685366	0.00283302	0	0.766765	0.04112	0	4.139674	0.17316	0.159131	0.009922	0.000141	0	0.274391	0.065461	0	0.185198	0.000772	0	1050.221	14.88803	0	0.011001	0.000132	0	0.16508	0.00234	0
HHDT	2.149E-05	0.0134414	0.268936	1.18419388	0.00296041	0.4871768	53.32067	0	1.188604	6.639926	0	0.284633	0.022786	0	0.000157459	0.084234	0.013441	0.000655	0.033779	0	0.000615	2302.623	0	15.91167	0.195459	0	4.72E-05	0.19648	0	0.008577
HHDT	0.0226857	0.0083641	0.0816865	0.22026238	0.03924766	0	0.814221	0.407654	0	5.591419	0.544447	0.112113	0.015086	0.000851	0	0.187352	0.230542	0	0.121876	0.001778	0	1596.79	90.0574	0	0.010231	0.001823	0	0.250993	0.014156	0
HHDT	0.0002824	0.0245378	0.0956972	0.58300045	0.0026504	0	12.36738	0.469325	0	5.455927	0.688697	0	0	0	0	0.10797	0.105675	0	0.045247	0.001905	0	3586.796	106.8191	0	6.047653	0.034642	0	0.731192	0.021776	0
OBUS	0.0006724	0.021925	0.4386752	0.0991632	0.01797569	0.2475771	2.52997	0.126015	1.599855	0.730406	0.00142	0.149191	0.017527	8.42E-05	0.00012177	0.143224	0.021925	0.000138	0.059673	0	0.000128	1771.138	8.504424	12.30523	0.020205	0.004254	0.014888	0.033658	0.000115	0.011139
OBUS	0.0007661	0.0136752	0.1346264	0.3068166	0.02477991	0	1.015857	0.202608	0	5.280147	0.415842	0.149972	0.012111	0.000409	0	0.289937	0.207031	0	0.200072	0.00253	0	1281.904	43.2452	0	0.014251	0.001151	0	0.201497	0.006798	0
SBUS	0.0001533	0.0232158	0.0928631	0.08698064	0.24676593	0.1005456	1.945047	1.899554	0.782772	0.528399	0.021401	0.054613	0.008909	0.000615	4.5687E-05	0.753889	0.023216	3.6E-05	0.322201	0	3.31E-05	900.2553	62.11269	4.616797	0.01724	0.055716	0.005498	0.028814	0.001953	0.004943
SBUS	0.000387	0.0314371	0.3627796	0.1325742	0.01071306	0	0.3631	0.181379	0	7.986568	1.414182	0.254823	0.011943	0.00109	0	0.809267	0.110096	0	0.372397	0.002366	0	1264.098	115.3336	0	0.006158	0.000498	0	0.198699	0.018129	0
UBUS	0.0001175	0.0138248	0.0552994	0.02013079	0.00061749	0.0624177	0.395906	0	0.396402	0.331038	0	0.049924	0.020957	0	4.92635E-05	0.1353	0.013825	8.87E-06	0.056155	0	8.16E-06	2117.747	0	4.978216	0.005992	0	0.006561	0.026778	0	0.004131
UBUS	1.175E-05	0.0097569	0.0390274	0.00807105	0	0	0.654282	0	0	6.107544	0	0	0.017005	0	0	0.113762	0.009757	0	0.047747	0	0	1798.822	0	0	0.072856	0	0	0.28275	0	0
UBUS	3.903E-06	0.0112107	0.0448429	0	0	0	0	0	0	0	0	0	0	0	0	0.14234	0.011211	0	0.05886	0	0	0	0	0	0	0	0	0	0	0
UBUS	0.0015494	0.0094417	0.0377668	0.46136451	0	0	39.6537	0	0	3.056261	0	0	0	0	0	0.10737	0.009442	0	0.042791	0	0	1965.247	0	0	7.61031	0	0	0.400628	0	0
MCY	0.0039176	0.1369979	0.2739957	2.73095925	0.50155573	1.3813732	20.80259	0	2.304287	1.138727	0	0.07196	0.002217	0	0.000166181	0.017915	0.136998	0.001019	0.008062	0	0.000964	224.0832	0	16.79304	0.390755	0	0.065872	0.065786	0	0.004112
MH	0.000681	0.1012728	0.0101313	0.13007225	0.02325986	0.0308997	3.808349	0	0.033845	0.606517	0	0.003192	0.017395	0	2.79512E-06	0.144365	0.101273	5.92E-06	0.060727	0	5.49E-06	1757.767	0	0.282455	0.025556	0	0.000366	0.03308	0	0.000318
MH	0.0001804	0.0935897	0.009359	0.08515836	0	0	0.369744	0	0	4.498567	0	0	0.009549	0	0	0.262757	0.09359	0	0.171241	0	0	1010.115	0	0	0.003955	0	0	0.158776	0	0

EMFAC2017 (v1.0.2) Emission Rates
Region Type: Sub-Area
Region: Los Angeles (SC)
Calendar Year: 2040
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HTSK and RUNLS, g/vehicle/day for IDLEX, RESTL and DIURN

Region	Calendar Y	Fleet	Vehicle Ca	Fleet Mix	Model Yea	Speed	Fuel	Population	VMT	Trips	ROG_RUN	ROG_IDLE	ROG_STRE	ROG_HOT	ROG_RUN	ROG_REST	ROG_DIUR	CO_RUNEX	CO_IDLEX	CO_STREX	NOx_RUNI	NOx_IDLE	NOx_STRE	PM10_RUI	PM10_IDL	PM10_STR	PM10_PM	PM10_PM	PM2_5_RL	PM2_5_ID	PM2_5_ST	PM2_5_PA	PM2_5_PA	SOx_RUNE	SOx_IDLE	SOx_STREX	CO2_RUNI	CO2_IDLE	CO2_STRE	CH4_RUNE	CH4_IDLE	CH4_STRE	N2O_RUN	N2O_IDLE	N2O_STRE
								vehicle/day	miles/day	trips/day	g/mile	g/vehicle/	g/trip	g/trip	g/trip	g/vehicle/	g/vehicle/	g/mile	g/vehicle/	g/trip	g/mile	g/vehicle/	g/trip	g/mile	g/vehicle/	g/trip	g/mile	g/vehicle/	g/trip	g/mile	g/mile	g/mile	g/mile	g/vehicle/	g/trip	g/mile	g/mile	g/vehicle/	g/trip	g/mile	g/mile	g/vehicle/	g/trip	g/mile	g/vehicle/	g/trip
Los Angeles (SC)	2040	1	LDA		Aggregate	Aggregate	GAS	4511637.789	145306717	21219692.53	0.002392	0	0.071858	0.039613	0.150402	0.092009	0.08275	0.433368	0	1.401989	0.017713	0	0.1119	0.000719	0	0.000795	0.008	0.03675	0.000661	0	0.000731	0.002	0.01575	0.002045	0	0.000391	206.6797	0	39.55817	0.000832	0	0.019453	0.002971	0	0.01821
Los Angeles (SC)	2040	1	LDA		Aggregate	Aggregate	DSL	54923.69295	1796808.696	260091.2186	0.006867	0	0	0	0	0	0	0.220631	0	0	0.010923	0	0	0.000948	0	0	0.008	0.03675	0.000907	0	0	0.002	0.01575	0.001582	0	0	167.3762	0	0	0.000319	0	0	0.026309	0	0
Los Angeles (SC)	2040	1	LDA		Aggregate	Aggregate	ELEC	281436.9382	9539230.562	1344160.259	0	0	0	0.004888	0	0	0.0075	0.022407	0	0	0	0	0	0	0	0	0.008	0.03675	0	0	0	0.002	0.01575	0	0	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2040	2	LDT1		Aggregate	Aggregate	GAS	649445.5765	20089669.21	2990344.755	0.003319	0	0.081572	0.055719	0.213946	0.156805	0.136455	0.463034	0	1.46444	0.021252	0	0.12627	0.000821	0	0.000895	0.008	0.03675	0.000755	0	0.000823	0.002	0.01575	0.002395	0	0.000459	242.0111	0	46.43309	0.001062	0	0.021558	0.003274	0	0.019844
Los Angeles (SC)	2040	2	LDT1		Aggregate	Aggregate	DSL	97.53124475	2917.012946	437.3508005	0.025916	0	0	0	0	0	0	0.273651	0	0	0.109591	0	0	0.007508	0	0	0.008	0.03675	0.007183	0	0	0.002	0.01575	0.003166	0	0	334.9381	0	0	0.001204	0	0	0.052648	0	0
Los Angeles (SC)	2040	2	LDT1		Aggregate	Aggregate	ELEC	23244.64488	768818.2864	110130.5169	0	0	0	0.004888	0	0.0075	0.022407	0	0	0	0	0	0	0	0	0	0.008	0.03675	0	0	0	0.002	0.01575	0	0	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2040	3	LDT2		Aggregate	Aggregate	GAS	1760938.021	55924271.53	8210949.171	0.004052	0	0.101659	0.050029	0.196503	0.182159	0.160439	0.522906	0	1.848981	0.021216	0	0.122924	0.000755	0	0.000815	0.008	0.03675	0.000695	0	0.00075	0.002	0.01575	0.002364	0	0.000463	238.9023	0	46.82457	0.001278	0	0.026261	0.003162	0	0.019494
Los Angeles (SC)	2040	3	LDT2		Aggregate	Aggregate	DSL	17747.64845	572083.9238	83613.49197	0.022193	0	0	0	0	0	0	0.228287	0	0	0.036435	0	0	0.004824	0	0	0.008	0.03675	0.004615	0	0	0.002	0.01575	0.00211	0	0	223.2351	0	0	0.001031	0	0	0.035089	0	0
Los Angeles (SC)	2040	3	LDT2		Aggregate	Aggregate	ELEC	76658.99621	1778280.731	364862.0627	0	0	0	0.004888	0	0.0075	0.022407	0	0	0	0	0	0	0	0	0	0.008	0.03675	0	0	0	0.002	0.01575	0	0	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2040	4	LHDT1		Aggregate	Aggregate	GAS	115739.8696	3728884.993	1724351.604	0.003699	0.285527	0.044556	0.056074	0.277503	0.021278	0.026978	0.123966	3.781397	1.35526	0.033018	0.02486	0.289111	0.00126	0	0.000328	0.008	0.07644	0.001158	0	0.000302	0.002	0.03276	0.006632	0.000996	0.000156	670.1331	100.698	15.79387	0.001174	0.088787	0.010317	0.003326	0.002566	0.029075
Los Angeles (SC)	2040	4	LHDT1		Aggregate	Aggregate	DSL	131177.3629	4216123.08	1650046.204	0.043051	0.10976	0	0	0	0	0	0.201377	0.909745	0	0.097256	0.919986	0	0.005889	0.02757	0	0.012	0.07644	0.005634	0.026377	0	0.003	0.03276	0.00364	0.001014	0	385.0249	107.2893	0	0.002	0.005098	0	0.060521	0.016864	0
Los Angeles (SC)	2040	5	LHDT2		Aggregate	Aggregate	GAS	21029.42599	651643.9642	313307.1134	0.00367	0.28552	0.041872	0.053059	0.267872	0.0214	0.026744	0.123409	3.781397	1.347126	0.037546	0.024859	0.287699	0.001248	0	0.00032	0.008	0.08918	0.001147	0	0.000294	0.002	0.03822	0.007624	0.00115	0.000179	770.389	116.1827	18.04602	0.001163	0.088765	0.009854	0.003767	0.002529	0.028594
Los Angeles (SC)	2040	5	LHDT2		Aggregate	Aggregate	DSL	53164.37395	1647325.674	668740.9435	0.044198	0.10976	0	0	0	0	0	0.209259	0.909745	0	0.139514	0.943933	0	0.012695	0.027542	0	0.012	0.08918	0.012146	0.026351	0	0.003	0.03822	0.004028	0.001645	0	426.1252	173.9899	0	0.002053	0.005098	0	0.066981	0.027349	0
Los Angeles (SC)	2040	6	MDV		Aggregate	Aggregate	GAS	1125880.132	33637564.39	5214657.977	0.004522	0	0.111277	0.071349	0.213637	0.279044	0.245461	0.533817	0	1.905331	0.024222	0	0.134885	0.000796	0	0.000856	0.008	0.03675	0.000732	0	0.000787	0.002	0.01575	0.00289	0	0.000567	292.0769	0	57.25124	0.001395	0	0.027936	0.003366	0	0.020393
Los Angeles (SC)	2040	6	MDV		Aggregate	Aggregate	DSL	39448.00408	1198600.41	185083.4525	0.007935	0	0	0	0	0	0	0.249629	0	0	0.012511	0	0	0.00118	0	0	0.008	0.03675	0.001129	0	0	0.002	0.01575	0.002733	0	0	289.0924	0	0	0.000369	0	0	0.045441	0	0
Los Angeles (SC)	2040	6	MDV		Aggregate	Aggregate	ELEC	55296.48697	1285484.505	263391.6063	0	0	0	0.004888	0	0.0075	0.022407	0	0	0	0	0	0	0	0	0	0.008	0.03675	0	0	0	0.002	0.01575	0	0	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2040	7	MHDT		Aggregate	Aggregate	GAS	17873.30335	869071.9124	357609.0535	0.010384	1.016311	0.14849	0.051448	0.249595	0.019993	0.024961	0.206351	14.50839	2.849581	0.089947	0.090188	0.328562	0.001242	0	0.000425	0.012	0.13034	0.001142	0	0.000391	0.003	0.05586	0.013398	0.004419	0.000298	1353.933	446.5553	30.10287	0.002813	0.275994	0.031094	0.008425	0.008554	0.030937
Los Angeles (SC)	2040	7	MHDT		Aggregate	Aggregate	DSL	94581.62172	5348750.502	977486.7381	0.007495	0.062086	0	0	0	0	0	0.077746	2.611933	0	1.221829	3.687528	2.166663	0.007064	0.001011	0	0.012	0.13034	0.006758	0.000967	0	0.003	0.05586	0.007039	0.006035	0	745.0433	638.839	0	0.000348	0.002884	0	0.11711	0.100417	0
Los Angeles (SC)	2040	8	HHDT		Aggregate	Aggregate	GAS	68.58246815	8054.503843	1372.198023	0.341674	0	0.001272	0.049465	0.243917	0.019848	0.024778	30.90701	0	4.572851	3.094957	0	0.214824	0.001249	0	0.000433	0.02	0.06174	0.001148	0	0.000398	0.005	0.02646	0.015663	0	0.000353	1582.787	0	35.63927	0.076404	0	0.000244	0.133562	0	0.009835
Los Angeles (SC)	2040	8	HHDT		Aggregate	Aggregate	DSL	64899.24031	8952525.175	676354.1908	0.01895	4.962156	0	0	0	0	0	0.222289	73.24138	0	2.425144	59.16406	2.403823	0.017168	0.021936	0	0.035643	0.061127	0.016425	0.020987	0	0.008911	0.026197	0.009626	0.090049	0	1018.889	9531.5	0	0.00088	0.230479	0	0.160155	1.498219	0
Los Angeles (SC)	2040	8	HHDT		Aggregate	Aggregate	NG	4817.341871	196383.0654	18787.6333	0.090394	0.022332	0	0	0	0	0	14.53433	21.95066	0	0.713243	18.38627	0	0.003479	0.01103	0	0.036	0.06174	0.003328	0.010553	0	0.009	0.02646	0	0	0	2670.772	3129.953	0	4.110049	1.17376	0	0.544454	0.638061	0
Los Angeles (SC)	2040	9	OBUS		Aggregate	Aggregate	GAS	4148.443919	140892.0542	83002.06593	0.015626	0.750019	0.124854	0.029196	0.325371	0.026107	0.043197	0.334738	5.797197	2.461748	0.131699	0.065312	0.293915	0.001229	0	0.000295	0.012	0.13034	0.00113	0	0.000271	0.003	0.05586	0.013529	0.003159	0.000215	1367.094	319.1768	21.68815	0.003787	0.197905	0.024654	0.009957	0.005689	0.02479
Los Angeles (SC)	2040	9	OBUS		Aggregate	Aggregate	DSL	4684.031544	316235.4552	45097.75702	0.010877	0.830798	0	0	0	0	0	0.117773	13.36639	0	1.592352	11.63993	2.225039	0.010583	0.003939	0	0.012	0.13034	0.010125	0.003769	0	0.003	0.05586	0.008792	0.020157	0	930.6537	2133.58	0	0.000505	0.038588	0	0.146286	0.335369	0
Los Angeles (SC)	2040	10	SBUS		Aggregate	Aggregate	GAS	2952.278923	101534.1765	11809.11569	0.01191	10.64152	0.285389	0.080081	0.515087	0.024076	0.03957	0.210384	82.24088	6.31762	0.122865	0.92653	0.531753	0.001489	0	0.000675	0.008	0.7448	0.001369	0	0.000621	0.002	0.3192	0.007218	0.021857	0.000392	729.4474	2208.737	39.58863	0.002669	2.384646	0.049772	0.01173	0.093519	0.050629
Los Angeles (SC)	2040	10	SBUS		Aggregate	Aggregate	DSL	4158.729987	132393.1093	47991.16746	0.019097	0.270203	0	0	0	0	0	0.145836	11.05162	0	1.996175	16.48744	2.062421	0.00581	0.004501	0	0.012	0.7448	0.005558	0.004306	0	0.003	0.3192	0.008877	0.02731	0	939.6143	2890.754	0	0.000887	0.01255	0	0.147694	0.454386	0
Los Angeles (SC)	2040	11	UBUS		Aggregate	Aggregate	GAS	510.3963623	36492.94024	2041.585449	0.019557	0	0.37719	0.028538	0.147356	0.00786	0.011026	0.292331	0	7.107423	0.196019	0	0.669451	0.002203	0	0.000877	0.011341	0.123562	0.002025	0	0.000806	0.002835	0.052955	0.015496	0	0.000685	1565.947	0	69.2208	0.005937	0	0.089338	0.018334	0	0.064328
Los Angeles (SC)	2040	11	UBUS		Aggregate	Aggregate	DSL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Los Angeles (SC)	2040	11	UBUS		Aggregate	Aggregate	ELEC																																					
Los Angeles (SC)	2040	11	UBUS		Aggregate	Aggregate	NG	4592.391973	486036.1381	18369.56789	0.090543	0	0	0	0	0	0	49.02151	0	0	0.482866	0	0	0.003364	0	0	0.033417	0.06886	0.003218	0	0	0.008354	0.029511	0	0	0	1993.862	0	0	6.314386	0	0	0.406462	0	0
Los Angeles (SC)	2040	12	MCY		Aggregate	Aggregate	GAS	271849.9913	1457519.238	543699.9826	2.564542	0	1.732458	0.63089	1.188505	1.323746	2.245629	17.71919	0	8.778936	1.130831	0	0.263331	0.002793	0	0.002991	0.004	0.01176	0.002603	0	0.00279	0.001	0.00504	0.002226	0	0.000561	224.976	0	56.71037	0.376412	0	0.224095	0.065058	0	0.014944
Los Angeles (SC)	2040	13	MH		Aggregate	Aggregate	GAS	22254.20405	203103.4462	2226.310573	0.009864	0	0.096876	0.021366	0.252067	0.021826	0.036498	0.171519	0	2.10791	0.100204	0	0.324542	0.001233	0	0.000313	0.012	0.13034	0.001133	0	0.000288	0.003	0.05586	0.013534	0	0.000202	1367.654	0	20.42577	0.003528	0	0.027129	0.012071	0	0.038698
Los Angeles (SC)	2040	13	MH		Aggregate	Aggregate	DSL	10387.72885	86657.62257	1038.772885	0.047921	0	0	0	0	0	0	0.146552	0	0	2.219768	0	0	0.023754	0	0	0.016	0.13034	0.022726	0	0	0.004	0.05586	0.007642	0	0	808.3893	0	0	0.002226	0	0	0.127068	0	0

2018 Existing Emissions Data

Mobile Operation Emissions (pounds per day)

	ROG	CO	NOx	SOx	PM10	PM2.5
Total	4,123.08	38,621.78	8,474.29	84.66	1,826.78	540.95

Mobile Operation Emissions (pounds per day)

	ROG	CO	NOx	SOx	PM10	PM2.5
LDA	1,497.00	16,089.85	1,205.16	36.04	835.06	230.74
LDA	2.82	28.95	13.24	0.18	7.03	2.90
LDA	0.17	0.00	0.00	0.00	8.68	2.17
LDT1	382.50	3,210.07	307.84	4.24	87.85	25.27
LDT1	0.18	0.97	0.92	0.00	0.20	0.14
LDT1	0.00	0.00	0.00	0.00	0.18	0.04
LDT2	746.14	7,520.06	810.07	15.44	278.51	76.83
LDT2	0.55	3.70	1.41	0.06	1.46	0.54
LDT2	0.02	0.00	0.00	0.00	0.95	0.23
MDV	623.36	6,198.30	681.46	11.90	182.79	49.54
MDV	0.82	11.60	3.21	0.16	2.95	1.00
MDV	0.00	0.00	0.00	0.00	0.11	0.03
LHDT1	185.81	737.39	168.87	2.62	34.85	11.26
LHDT1	14.56	81.29	389.32	0.71	24.15	8.43
LHDT2	28.57	99.47	27.10	0.46	5.97	1.97
LHDT2	5.52	30.50	143.16	0.31	10.29	3.65
MHDT	32.23	371.84	64.89	1.07	9.77	3.63
MHDT	66.62	224.55	1,242.99	2.80	94.46	51.69
HHDT	0.75	24.49	3.11	0.01	0.04	0.02
HHDT	123.07	579.45	2,962.99	7.56	198.18	58.64
HHDT	3.46	75.78	36.27	0.00	1.26	0.28
OBUS	5.13	59.82	12.38	0.25	2.32	0.84
OBUS	5.31	19.51	93.62	0.20	7.96	3.24
SBUS	1.39	14.83	1.94	0.03	2.49	1.03
SBUS	1.16	4.40	78.11	0.11	7.44	3.03
UBUS	0.20	1.95	0.94	0.05	0.37	0.14
UBUS	0.00	0.16	1.50	0.00	0.03	0.01
UBUS	0.00	0.00	0.00	0.00	0.01	0.00
UBUS	14.94	1,284.39	98.99	0.00	3.78	1.39
MCY	377.86	1,892.34	99.15	0.20	12.77	0.74
MH	2.62	54.70	8.68	0.25	3.50	0.86
MH	0.32	1.39	16.97	0.04	1.34	0.65

Mobile Operation Emissions (MT per day)

	CO2	CH4	N20	CO2e
Total	3,945.68	0.31	0.22	4,019.62

Mobile Operation Emissions (MT per day)

	CO2	CH4	N20	CO2e
LDA	1,652.0340	0.0738	0.0546	1,669.98
LDA	8.5742	0.0001	0.0013	8.97
LDA	0.0000	0.0000	0.0000	0.00
LDT1	194.1719	0.0142	0.0098	197.42
LDT1	0.1622	0.0000	0.0000	0.17
LDT1	0.0000	0.0000	0.0000	0.00
LDT2	707.5659	0.0345	0.0281	716.73
LDT2	2.8238	0.0000	0.0004	2.95
LDT2	0.0000	0.0000	0.0000	0.00
MDV	545.3221	0.0300	0.0220	552.58
MDV	7.4867	0.0000	0.0012	7.83
MDV	0.0000	0.0000	0.0000	0.00
LHDT1	120.0646	0.0040	0.0051	121.67
LHDT1	34.1650	0.0003	0.0054	35.76
LHDT2	21.0805	0.0006	0.0008	21.34
LHDT2	14.7977	0.0001	0.0023	15.49
MHDT	48.9345	0.0014	0.0014	49.39
MHDT	134.2874	0.0014	0.0211	140.55
HHDT	0.4725	0.0000	0.0000	0.49
HHDT	362.8601	0.0026	0.0570	379.75
HHDT	9.8906	0.0163	0.0020	10.89
OBUS	11.4259	0.0003	0.0003	11.52
OBUS	9.6260	0.0001	0.0015	10.08
SBUS	1.4053	0.0001	0.0001	1.42
SBUS	5.0615	0.0000	0.0008	5.30
UBUS	2.3653	0.0000	0.0000	2.38
UBUS	0.2003	0.0000	0.0000	0.21
UBUS	0.0000	0.0000	0.0000	0.00
UBUS	28.8737	0.1118	0.0059	33.41
MCY	8.9480	0.0170	0.0026	10.14
MH	11.3524	0.0002	0.0002	11.42
MH	1.7282	0.0000	0.0003	1.81

2040 Emission Factors

Running Exhaust (RUNEX) emissions
Idle Exhaust (IDLEX) emissions
Start Exhaust (STREX) emissions
Evaporative emissions include four major processes: hot soak, running loss, diurnal (both partial-day and multi-day diurnal), and resting loss

Mobile Operation Emission factors (grams per mile)

Fleet Mix	Percent Fleet mIx	Population per VMT	Trip per VMT	ROG (g/mile)	ROG (pop g/r	ROG (trips g/	CO (g/mile	CO (pop g/	CO (trips g	NOx (g/mi	NOx (pop	NOx (trips	SOx (g/mil	SOx (pop g	SOx (trips g/m	PM10 (g/n	PM10 (pop	PM10 (trips g/	PM25 (g/n	PM25 (pop	PM25 (trips g/mile)	CO2 (g/mil	CO2 (pop g	CO2 (trips	CH4 (g/mil	CH4 (pop g	CH4 (trips	N2O (g/mi	N2O (pop	N2O (trips
LDA	0.4835819	0.0310491	0.1460338	0.00239225	0.0054261	0.0382423	0.433368	0	0.204738	0.017713	0	0.016341	0.000719	0	0.000116148	0.008731	0.067799	9.65707E-05	0.002391	0.000489	0.000299	206.6797	0	5.77683	0.000832	0	0.002841	0.002971	0	0.002659
LDA	0.0059798	0.0305674	0.1447518	0.00686682	0	0	0.220631	0	0	0.010923	0	0	0.000948	0	0	0.008	0.067317	0.000131267	0.002	0.000481	0.000229	167.3762	0	0	0.000319	0	0	0.026309	0	0
LDA	0.0317466	0.0295031	0.1409087	0	0.00088237	0.0006888	0	0	0	0	0	0	0	0	0	0.008	0.066253	0	0.002	0.000465	0	0	0	0	0	0	0	0	0	0
LDT1	0.0668586	0.0323273	0.1488499	0.00331918	0.00948029	0.0522815	0.463034	0	0.217982	0.021252	0	0.018795	0.000821	0	0.000133226	0.008823	0.069077	0.000112411	0.002459	0.000509	0.000356	242.0111	0	6.91156	0.001062	0	0.003209	0.003274	0	0.002954
LDT1	9.708E-06	0.0334353	0.149931	0.02591626	0	0	0.273651	0	0	0.109591	0	0	0.007508	0	0	0.008	0.070185	0.001076974	0.002	0.000527	0.000475	334.9381	0	0	0.001204	0	0	0.052648	0	0
LDT1	0.0025586	0.0302343	0.1432465	0	0.00090424	0.0007002	0	0	0	0	0	0	0	0	0	0.008	0.066984	0	0.002	0.000476	0	0	0	0	0	0	0	0	0	0
LDT2	0.1861164	0.0314879	0.1468226	0.00405197	0.0107877	0.0511222	0.522906	0	0.271472	0.021216	0	0.018048	0.000755	0	0.000119718	0.00875	0.068238	0.00010199	0.002463	0.000496	0.000347	238.9023	0	6.874907	0.001278	0	0.003856	0.003162	0	0.002862
LDT2	0.0019039	0.0310228	0.146156	0.02219299	0	0	0.228287	0	0	0.036435	0	0	0.004824	0	0	0.008	0.067773	0.000674518	0.002	0.000489	0.000308	223.2351	0	0	0.001031	0	0	0.035089	0	0
LDT2	0.0059181	0.0431085	0.2051769	0	0.00128927	0.0010029	0	0	0	0	0	0	0	0	0	0.008	0.079859	0	0.002	0.000679	0	0	0	0	0	0	0	0	0	0
MDV	0.0124098	0.0310387	0.4624309	0.00369886	0.0103602	0.1748602	0.123966	0.11737	0.626714	0.033018	0.000772	0.133694	0.00126	0	0.000151693	0.008302	0.107479	0.000535591	0.003153	0.001017	0.003067	670.1331	3.12554	7.303574	0.001174	0.002756	0.004771	0.003326	7.96E-05	0.013445
MDV	0.0140313	0.0311133	0.3913658	0.04305106	0.00341498	0	0.201377	0.028305	0	0.097256	0.028624	0	0.005889	0.000858	0	0.038377	0.107553	0.002205001	0.004014	0.001019	0.001425	385.0249	3.338121	0	0.002	0.000159	0	0.060521	0.000525	0
MDV	0.0021687	0.0322713	0.4807949	0.00366971	0.01076778	0.1744339	0.123409	0.122031	0.647691	0.037546	0.000802	0.138324	0.001248	0	0.000153862	0.008294	0.121451	0.00055154	0.003328	0.001233	0.003665	770.389	3.749371	8.676435	0.001163	0.002865	0.004738	0.003767	8.16E-05	0.013748
LHDT1	0.0054823	0.0322731	0.4059555	0.04419822	0.00354229	0	0.209259	0.02936	0	0.139514	0.030464	0	0.012695	0.000889	0	0.038351	0.121453	0.004930847	0.004645	0.001233	0.001635	426.1252	5.615202	0	0.002053	0.000165	0	0.066981	0.000883	0
LHDT1	0.1119461	0.0334709	0.1550248	0.00452153	0.01755567	0.0614306	0.533817	0	0.295374	0.024222	0	0.020911	0.000796	0	0.000132666	0.008787	0.070221	0.000113501	0.002567	0.000527	0.000448	292.0769	0	8.875364	0.001395	0	0.004331	0.003366	0	0.003161
LHDT2	0.003989	0.0329117	0.1544163	0.007935	0	0	0.249629	0	0	0.012511	0	0	0.00118	0	0	0.008	0.069662	0.00017433	0.002	0.000518	0.000422	289.0924	0	0	0.000369	0	0	0.045441	0	0
LHDT2	0.0042781	0.0430161	0.2048968	0	0.00128651	0.0010015	0	0	0	0	0	0	0	0	0	0.008	0.079766	0	0.002	0.000678	0	0	0	0	0	0	0	0	0	0
MHDT	0.0028923	0.020566	0.4114838	0.01038415	0.02182594	0.1849757	0.206351	0.298379	1.172557	0.089947	0.001855	0.135198	0.001242	0	0.000174812	0.012391	0.150906	0.000470041	0.007717	0.001149	0.005513	1353.933	9.183842	12.38685	0.002813	0.005676	0.012794	0.008425	0.000176	0.01273
MHDT	0.0178007	0.0176829	0.1827505	0.00749491	0.00109787	0	0.077746	0.046187	0	1.221829	0.065206	0.395959	0.007064	1.79E-05	0	0.012967	0.148023	0.001235058	0.009035	0.000988	0.001286	745.0433	11.29655	0	0.000348	5.1E-05	0	0.11711	0.001776	0
HHDT	2.681E-05	0.0085148	0.1703641	0.34167428	0.00037998	0.0501984	30.90701	0	0.779049	3.094957	0	0.036598	0.001249	0	7.37528E-05	0.020398	0.070255	0.000195646	0.005353	0.000225	0.002668	1582.787	0	6.071651	0.076404	0	4.15E-05	0.133562	0	0.001676
HHDT	0.0297941	0.0072493	0.075549	0.01894967	0.03597199	0	0.222289	0.530946	0	2.425144	0.428896	0.181606	0.017168	0.000159	0	0.05663	0.068377	0.001240892	0.09896	0.00019	0.000727	1018.889	69.09638	0	0.00088	0.001671	0	0.160155	0.010861	0
HHDT	0.0006536	0.0245303	0.0956683	0.0903939	0.00054782	0	14.53433	0.538457	0	0.713243	0.451021	0	0.003479	0.000271	0	0.046553	0.08627	0.000318402	0.009	0.000649	0	2670.772	76.7788	0	4.110049	0.028793	0	0.544454	0.015652	0
OBUS	0.0004689	0.0294441	0.5891181	0.01562569	0.02412426	0.2824357	0.334738	0.170693	1.45026	0.131699	0.001923	0.173151	0.001229	0	0.000173798	0.012271	0.159784	0.000665477	0.006373	0.001645	0.00797	1367.094	9.397883	12.77688	0.003787	0.005827	0.014524	0.009957	0.000168	0.014604
OBUS	0.0010524	0.0148118	0.1426082	0.0108771	0.01230565	0	0.117773	0.197981	0	1.592352	0.172409	0.317309	0.010583	5.83E-05	0	0.015769	0.145152	0.001443909	0.023157	0.000827	0.001254	930.6537	31.60226	0	0.000505	0.000572	0	0.146286	0.004967	0
SBUS	0.0003379	0.0290767	0.1163068	0.01191047	0.31127086	0.1024148	0.210384	2.391293	0.734782	0.122865	0.02694	0.061847	0.001489	0	7.85108E-05	0.008621	0.773877	0.000159238	0.024249	0.009281	0.00084	729.4474	64.22278	4.604427	0.002669	0.069338	0.005789	0.01173	0.002719	0.005889
SBUS	0.0004406	0.031412	0.3624899	0.01909741	0.0084876	0	0.145836	0.347153	0	1.996175	0.517903	0.747607	0.00581	0.000141	0	0.016306	0.776212	0.002014788	0.03031	0.010027	0.003218	939.6143	90.8043	0	0.000887	0.000394	0	0.147694	0.014273	0
UBUS	0.0001214	0.0139862	0.0559447	0.01955684	0.00026415	0.0309421	0.292331	0	0.397622	0.196019	0	0.037452	0.002203	0	4.90378E-05	0.012147	0.137548	0.000113315	0.00352	0.000741	0.000867	1565.947	0	3.872534	0.005937	0	0.004998	0.018334	0	0.003599
UBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#DIV/0!	#DIV/0!	0	#DIV/0!	#DIV/0!
UBUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UBUS	0.0016175	0.0094487	0.0377947	0.09054345	0	0	49.02151	0	0	0.482866	0	0	0.003364	0	0	0.033417	0.078309	0.000121642	0.008354	0.000279	0	1993.862	0	0	6.314386	0	0	0.406462	0	0
MCY	0.0048506	0.1865155	0.3730311	2.56454159	0.66574407	1.3249517	17.71919	0	3.274816	1.130831	0	0.098231	0.002793	0	0.001115643	0.00679	0.198276	0.000971158	0.001561	0.00094	0.00083	224.976	0	21.15473	0.376412	0	0.083594	0.065058	0	0.005575
MH	0.0006759	0.1095708	0.0109615	0.00986429	0.00639056	0.0040591	0.171519	0	0.023106	0.100204	0	0.003557	0.001233	0	3.43562E-06	0.012288	0.239911	1.24225E-05	0.003202	0.006121	0.000148	1367.654	0	0.223896	0.003528	0	0.000297	0.012071	0	0.000424
MH	0.0002884	0.1198709	0.0119871	0.0479214	0	0	0.146552	0	0	2.219768	0	0	0.023754	0	0	0.016	0.250211	0.000272424	0.004	0.006696	9.16E-05	808.3893	0	0	0.002226	0	0	0.127068	0	0

2040 Existing Daily Emissions Data
Mobile Operation Emissions (pounds per day)

	ROG	CO	NOx	SOx	PM10	PM2.5
Total	1,515.96	16,473.18	3,339.59	32.21	1,650.57	127.36

Mobile Operation Emissions (pounds per day)

	ROG	CO	NOx	SOx	PM10	PM2.5
LDA	437.36	6,059.03	323.35	7.93	727.60	30.19
LDA	0.81	25.91	1.28	0.11	8.86	0.32
LDA	0.98	0.00	0.00	0.00	46.29	1.54
LDT1	85.44	894.04	52.57	1.25	102.41	4.37
LDT1	0.00	0.05	0.02	0.00	0.02	0.00
LDT1	0.08	0.00	0.00	0.00	3.77	0.12
LDT2	241.06	2,903.04	143.49	3.20	281.72	12.08
LDT2	0.83	8.53	1.36	0.18	2.86	0.10
LDT2	0.27	0.00	0.00	0.00	10.21	0.31
MDV	46.03	211.52	40.81	0.34	28.34	1.76
MDV	12.80	63.28	34.68	1.86	40.81	1.78
MDV	8.04	38.03	7.52	0.06	5.55	0.35
LHDT1	5.14	25.69	18.30	1.46	17.73	0.81
LHDT1	183.56	1,822.65	99.21	2.04	173.92	7.79
LHDT2	0.62	19.55	0.98	0.09	6.10	0.23
LHDT2	0.19	0.00	0.00	0.00	7.37	0.22
MHDT	12.33	95.25	12.89	0.08	9.30	0.82
MHDT	3.00	43.32	588.25	2.48	56.70	3.95
HHDT	0.21	16.68	1.65	0.00	0.05	0.00
HHDT	32.13	440.66	1,775.91	10.14	73.86	58.43
HHDT	1.17	193.43	14.94	0.05	1.71	0.12
OBUS	2.97	18.01	2.82	0.01	1.59	0.15
OBUS	0.48	6.53	43.03	0.22	3.36	0.52
SBUS	2.82	22.14	1.40	0.01	5.19	0.23
SBUS	0.24	4.27	28.22	0.05	6.87	0.38
UBUS	0.12	1.65	0.56	0.01	0.36	0.01
UBUS	0.00	0.00	0.00	0.00	0.00	0.00
UBUS	0.00	0.00	0.00	0.00	0.00	0.00
UBUS	2.88	1,556.97	15.34	0.11	3.55	0.27
MCY	433.86	1,999.56	117.06	0.37	19.62	0.32
MH	0.27	2.58	1.38	0.02	3.35	0.13
MH	0.27	0.83	12.57	0.13	1.51	0.06

2040 Existing Daily Emissions Data
Mobile Operation Emissions (MT per day)

	CO2	CH4	N20	CO2e
Total	2,486.81	0.17	0.14	2,532.63

Mobile Operation Emissions (MT per day)

	CO2	CH4	N20	CO2e
LDA	915.0684	0.0158	0.0242	922.62
LDA	8.9144	0.0000	0.0014	9.33
LDA	0.0000	0.0000	0.0000	0.00
LDT1	148.2297	0.0025	0.0037	149.39
LDT1	0.0290	0.0000	0.0000	0.03
LDT1	0.0000	0.0000	0.0000	0.00
LDT2	407.4177	0.0085	0.0100	410.58
LDT2	3.7855	0.0000	0.0006	3.96
LDT2	0.0000	0.0000	0.0000	0.00
MDV	75.2220	0.0010	0.0019	75.80
MDV	48.5343	0.0003	0.0076	50.79
MDV	15.1205	0.0002	0.0003	15.23
LHDT1	21.0814	0.0001	0.0033	22.06
LHDT1	300.0682	0.0057	0.0065	302.13
LHDT2	10.2709	0.0000	0.0016	10.75
LHDT2	0.0000	0.0000	0.0000	0.00
MHDT	35.4336	0.0005	0.0005	35.61
MHDT	119.9132	0.0001	0.0188	125.48
HHDT	0.3793	0.0000	0.0000	0.39
HHDT	288.7129	0.0007	0.0454	302.12
HHDT	15.9936	0.0241	0.0033	17.56
OBUS	5.8019	0.0001	0.0001	5.83
OBUS	9.0198	0.0000	0.0014	9.44
SBUS	2.4025	0.0002	0.0001	2.43
SBUS	4.0437	0.0000	0.0006	4.23
UBUS	1.6981	0.0000	0.0000	1.71
UBUS	0.0000	0.0000	0.0000	0.00
UBUS	0.0000	0.0000	0.0000	0.00
UBUS	28.7251	0.0910	0.0059	32.73
MCY	10.6335	0.0199	0.0031	12.03
MH	8.2350	0.0000	0.0001	8.26
MH	2.0765	0.0000	0.0003	2.17

2040 Existing Daily Emissions Data
Mobile Operation Emissions (pounds per day)

	ROG	CO	NOx	SOx	PM10	PM2.5
Total	1,536.67	16,698.26	3,385.22	32.65	1,673.12	129.11

Mobile Operation Emissions (pounds per day)

	ROG	CO	NOx	SOx	PM10	PM2.5
LDA	443.34	6,141.82	327.77	8.04	737.54	30.60
LDA	0.82	26.26	1.30	0.11	8.98	0.32
LDA	0.99	0.00	0.00	0.00	46.92	1.56
LDT1	86.61	906.25	53.29	1.27	103.81	4.42
LDT1	0.01	0.05	0.02	0.00	0.02	0.00
LDT1	0.08	0.00	0.00	0.00	3.82	0.13
LDT2	244.35	2,942.70	145.45	3.24	285.57	12.25
LDT2	0.84	8.65	1.38	0.18	2.90	0.11
LDT2	0.27	0.00	0.00	0.00	10.35	0.32
MDV	46.66	214.41	41.37	0.35	28.73	1.79
MDV	12.98	64.14	35.16	1.88	41.37	1.80
MDV	8.15	38.55	7.63	0.06	5.62	0.36
LHDT1	5.21	26.04	18.55	1.48	17.98	0.82
LHDT1	186.07	1,847.56	100.56	2.07	176.29	7.89
LHDT2	0.63	19.82	0.99	0.09	6.18	0.23
LHDT2	0.19	0.00	0.00	0.00	7.47	0.23
MHDT	12.50	96.56	13.07	0.08	9.43	0.83
MHDT	3.04	43.91	596.28	2.51	57.48	4.01
HHDT	0.21	16.91	1.67	0.00	0.05	0.00
HHDT	32.57	446.68	1,800.18	10.27	74.87	59.23
HHDT	1.18	196.07	15.15	0.05	1.73	0.13
OBUS	3.01	18.25	2.86	0.01	1.61	0.15
OBUS	0.49	6.61	43.61	0.22	3.40	0.53
SBUS	2.86	22.44	1.42	0.01	5.26	0.23
SBUS	0.24	4.32	28.60	0.05	6.97	0.38
UBUS	0.12	1.67	0.56	0.01	0.36	0.01
UBUS	0.00	0.00	0.00	0.00	0.00	0.00
UBUS	0.00	0.00	0.00	0.00	0.00	0.00
UBUS	2.92	1,578.24	15.55	0.11	3.60	0.28
MCY	439.79	2,026.88	118.66	0.38	19.89	0.32
MH	0.27	2.62	1.40	0.02	3.39	0.13
MH	0.28	0.84	12.74	0.14	1.53	0.06

2040 Existing Daily Emissions Data
Mobile Operation Emissions (MT per day)

	CO2	CH4	N20	CO2e
Total	2,520.79	0.17	0.14	2,567.23

Mobile Operation Emissions (MT per day)

	CO2	CH4	N20	CO2e
LDA	927.5714	0.0160	0.0246	935.22
LDA	9.0362	0.0000	0.0014	9.46
LDA	0.0000	0.0000	0.0000	0.00
LDT1	150.2550	0.0026	0.0038	151.43
LDT1	0.0294	0.0000	0.0000	0.03
LDT1	0.0000	0.0000	0.0000	0.00
LDT2	412.9844	0.0086	0.0101	416.19
LDT2	3.8372	0.0000	0.0006	4.02
LDT2	0.0000	0.0000	0.0000	0.00
MDV	76.2498	0.0010	0.0019	76.83
MDV	49.1975	0.0003	0.0077	51.49
MDV	15.3271	0.0002	0.0003	15.43
LHDT1	21.3695	0.0001	0.0034	22.36
LHDT1	304.1682	0.0058	0.0066	306.26
LHDT2	10.4112	0.0000	0.0016	10.89
LHDT2	0.0000	0.0000	0.0000	0.00
MHDT	35.9178	0.0006	0.0006	36.10
MHDT	121.5517	0.0001	0.0191	127.19
HHDT	0.3845	0.0000	0.0000	0.39
HHDT	292.6577	0.0007	0.0460	306.25
HHDT	16.2122	0.0244	0.0033	17.80
OBUS	5.8812	0.0001	0.0001	5.91
OBUS	9.1431	0.0000	0.0014	9.57
SBUS	2.4353	0.0002	0.0001	2.46
SBUS	4.0989	0.0000	0.0006	4.29
UBUS	1.7213	0.0000	0.0000	1.73
UBUS	0.0000	0.0000	0.0000	0.00
UBUS	0.0000	0.0000	0.0000	0.00
UBUS	29.1176	0.0922	0.0059	33.17
MCY	10.7788	0.0201	0.0031	12.19
MH	8.3475	0.0000	0.0001	8.37
MH	2.1048	0.0000	0.0003	2.20

Alternative	Daily Emissions Data							Annual Emissions Data			
	Mobile Operation Emissions (pounds per day)							Mobile Operation Emissions (MT per yr)[1]			
	ROG	CO	NOx	SOx	PM_{10}	$PM_{2.5}$		CO_2	CH_4	N_20	CO_2e
Existing Base Year	4,123.08	38,621.78	8,474.29	84.66	1,826.78	540.95		1,369,151.11	107.14	77.89	1,394,807.75
2040 with Old Land Use Element	1,515.96	16,473.18	3,339.59	32.21	1,650.57	127.36		862,923.36	59.26	48.87	878,821.38
2040 with Proposed Land Use Element	1,536.67	16,698.26	3,385.22	32.65	1,673.12	129.11		874,713.84	60.07	49.54	890,829.08
Change											
From Existing	-2,586.41	-21,923.52	-5,089.06	-52.01	-153.65	-411.85		-494,437.27	-47.07	-28.35	-503,978.67
From Old Land Use Element	20.71	225.08	45.63	0.44	22.55	1.74		11,790.48	0.81	0.67	12,007.70

Source: Compiled by LSA using on-road vehicle emission factors from EMFAC2017 and VMT data from the Traffic Volume Analysis.

Note: 1) Annual VMT values derived from Daily VMT values multiplied by 347, per ARB methodology (ARB 2008).

ARB = California Air Resources Board

ROG = reactive organic gases

CO = carbon monoxide

NOX = nitrogen oxides

PM_{10} = particulate matter less than 10 microns in diameter

$PM_{2.5}$ = particulate matter less than 2.5 microns in diameter

CO_2 = carbon dioxide

CH_4 = methane

N_2O = nitrous oxide

CO_2e = carbon dioxide equivalent

MT/yr = metric tons per year

VMT = vehicle miles traveled

California Air Resources Board (CARB). 2008. Climate Change Scoping Plan. Appendix I: Measure Documentation. December. Website: https://www.arb.ca.gov/cc/scopingplan/document/scopingplandocument.htm (accessed March 2019).

California Air Resources Board (CARB). 2018. Mobile Source Emission Inventory - EMFAC2017 Web Database. This web page was last updated on March 1, 2018. Website: https://www.arb.ca.gov/emfac/ (accessed March 2019).

PlaceType	Residential Density (du/acre)	Non-Residential Intensity (FAR)[1]	Height	Uses Allowed	Land UseSubType	Description	ITE Number
Open Space	N/A	See Open Space and Recreational Element of the General Plan	2 stories	channels and basins, rivers, utility rights-of-way, oil islands, inland bodies of water, nature preserves, marine habitats, estuaries, wetlands, lagoons; Limited commercial recreation uses that supplement recreation services and	City Park	City parks are owned and operated by a city.	411
					Golf Course	Golf courses include 9, 18, 27 and 36 hole courses. Some sites may also have driving ranges and clubhouses with a pro shop, restaurant, lounge and banquet facilities.	430
Founding and Contemporary Neighborhood	7–18	0.25 to 0.50	2 stories	Single-family and low-density housing; Neighborhood-serving low-intensity commercial uses	Single Family Housing	All single-family detached homes on individual lots typical of a suburban subdivision	210
					Library	A library is a facility that consists of shelved books; reading rooms or areas; and sometimes meeting rooms.	590
Multiple-Family Residential:							
Low	Up to 29 du/ac based on lot size	0.25 to 0.50	4 stories	Duplex, triplex and garden apartment housing; Neighborhood-serving, low-intensity commercial uses	Apartments Low Rise	Low-rise apartments are units located in rental buildings that have 1-2 levels.	221
Moderate	Up to 62 du/ac based on lot size	0.50 to 0.75	6 stories	Moderate-density apartment and condominium buildings on larger parcels of land; Neighborhood-serving, low-intensity commercial uses	Apartments Mid Rise	Mid-rise apartments in rental buildings that have between 3 and 10 levels.	223
					Condo/Townhouse H	These are ownership units that have three or more levels.	232
Neighborhood-Serving Centers and Corridors:							
Low	Up to 44 du/ac based on lot size	0.50 to 1.00	4 stories	Neighborhood-serving, low-intensity commercial uses; Low-density apartment and condominium buildings	Apartments Low Rise	Low-rise apartments are units located in rental buildings that have 1-2 levels.	221
					Condo/Townhouse	These are ownership units that have at least one other owned unit within the same building structure.	230
Moderate	Up to 54 du/ac based on lot size	1.00 to 1.50	7 stories	Neighborhood-serving, moderate-intensity commercial uses; Moderate-density apartment and condominium buildings on larger parcels of land	Apartments Mid Rise	Mid-rise apartments in rental buildings that have between 3 and 10 levels.	223
					Condo/Townhouse H	These are ownership units that have three or more levels.	232
					Pharmacy/Drugstore	These are retail facilities that primarily sell prescription and non-prescription drugs. These facilities may also sell cosmetics, toiletries, medications, stationery, personal care products, limited food products and general merchandise. The drug stores in this category do not contain drive-through windows.	880
Transit-Oriented Development							
Low	N/A	1.50 to 3.00	5 stories (consistent with Midtown Specific Plan)	Low urban density apartment and condominium buildings; Low-intensity commercial uses	Apartments Low Rise	Low-rise apartments are units located in rental buildings that have 1-2 levels.	221
					Condo/Townhouse H	These are ownership units that have three or more levels.	232
Moderate	N/A	2.00 to 4.00	10 stories	Moderate urban density apartment and condominium buildings; Moderate-intensity commercial uses	Apartments Mid Rise	Mid-rise apartments in rental buildings that have between 3 and 10 levels.	223
					Condo/Townhouse H	These are ownership units that have three or more levels.	232
Community Commercial	N/A	2.00 to 4.00	7 stories	Commercial uses that serve community-based needs for goods and services	Convenience Market	These markets sell convenience foods, newspapers, magazines and often beer and wine. They do not have gasoline pumps.	851
					Strip Mall	Small strip shopping centers contain a variety of retail shops and specialize in quality apparel, hard goods and services such as real estate offices, dance studios, florists and small restaurants.	814
					Pharmacy/Drugstore	These are retail facilities that primarily sell prescription and non-prescription drugs. These facilities may also sell cosmetics, toiletries, medications, stationery, personal care products, limited food products and general merchandise. The drug stores in this category do not contain drive-through windows.	880
Industrial	N/A	N/A	65 ft	Research and development activities, storage, industrial and manufacturing endeavors, tank farms, oil drilling and the like; Limited commercial uses accessory to the industrial business	Research & Develop	R&D centers are facilities devoted almost exclusively to R&D activities. The range of specific types of businesses contained in this land use category varies significantly. R&D centers may contain offices and light fabrication areas.	760
Neo-Industrial	Up to 36 du/ac based on lot size	0.50 to 1.00	65 ft	Light industrial, clean manufacturing and offices; Commercial uses accessory to creative business endeavor(s); Repurposed buildings with live/work artist studios	Manufacturing	Manufacturing facilities are areas where the primary activity is the conversion of raw materials or parts into finished products. It generally also has office, warehouse, R&D functions at the site.	140
					General Light Industry	Light industrial facilities are free-standing facilities devoted to a single use. The facilities have an emphasis on activities other than manufacturing and typically have minimal office space. Typical light industrial activities include printing, material testing and assembly of data processing equipment.	110
Regional-Serving Facility	N/A	N/A	See Figure 3.4, PlaceType Heights	Medical centers, higher education campuses, Port of Long Beach, Long Beach Airport and surrounding areas, public utility facilities (e.g., water, energy), destination retail centers and similar uses	Medical Office Building	This is a facility that provides diagnoses and outpatient care on a routine basis but is unable to provide prolonged in-house medical and surgical care. One or more private physicians or dentists generally operate this type of facility.	720
					Regional Shopping Center	A shopping center is an integrated group of commercial establishments that is planned, developed, owned and managed as a unit. A shopping center's composition is related to its market area in terms of size, location and type of store.	820
					Junior College (2Yr)	This land use includes two-year junior, community, or technical colleges.	540
Downtown (See Downtown Plan)	Regulated through FAR and height	Regulated through FAR and height	See Downtown Plan,	See Downtown Plan	General Office Building	A general office building houses multiple tenants where affairs of businesses commercial or industrial organizations or professional persons or firms are conducted. If information is known about individual buildings, it is suggested that this land use be used instead of the more generic office park.	710
Waterfront	Varies by area; see descriptions.	Varies by area; see descriptions.	See Figure 3.4, PlaceType Heights	Varies by area; see descriptions			

Estimated number of units and square footages equals 1 acre

	Placetypes - Land Uses	Units (dwelling units)	Square footage (1,000 sf)	Land Use Category
1	Single Family Housing	3	-	Single Family
2	Apartments Low Rise	16	-	Multi-Family
3	Apartments Mid Rise	38	-	Multi-Family
4	Condo/Townhouse High Rise	16	-	Multi-Family
5	City Park	-	43.56	Public Facilities/ Institutional
6	Golf Course	-	43.56	Public Facilities/ Institutional
7	Library	-	43.56	Public Facilities/ Institutional
8	Junior College (2Yr)	-	43.56	Public Facilities/ Institutional
9	General Office Building	-	43.56	Office
10	Medical Office Building	-	43.56	Office
11	Convenience Market (24 Hour)	-	43.56	Commercial
12	Pharmacy/Drugstore W/O Drive Thru	-	43.56	Commercial
13	Regional Shopping Center	-	43.56	Commercial
14	Strip Mall	-	43.56	Commercial
15	General Light Industry	-	43.56	Industrial
16	Manufacturing	-	43.56	Industrial
17	Research & Development	-	43.56	Industrial

Existing 2018 Emission Factors

		Category	Pollutant Emission Factors, lbs/acre/day					
			ROG	NOX	CO	SOX	PM10	PM2.5
1	Single Family Residential	Area Sources	0.2098	0.0572	1.0026	0.0010	0.1247	0.1247
		Energy Sources	0.0024	0.0208	0.0089	0.0001	0.0017	0.0017
		Total SFR Emission Factors	0.2122	0.0780	1.0115	0.0011	0.1264	0.1264
2	Apartments Low Rise	Area Sources	0.8434	0.3050	5.3470	0.0143	0.6652	0.6652
		Energy Sources	0.0077	0.0660	0.0281	0.0004	0.0053	0.0053
		Total Apt Low Emission Factors	0.8511	0.3710	5.3751	0.0147	0.6705	0.6705
3	Apartments Mid Rise	Area Sources	0.9776	0.5725	3.3852	0.0010	0.0606	0.0606
		Energy Sources	0.0150	0.1285	0.0547	0.0010	0.0104	0.0104
		Total Apt Mid Emission Factors	0.9926	0.7010	3.4399	0.0020	0.0710	0.0710
4	Condos/Townhouse	Area Sources	0.8434	0.3050	5.3470	0.0143	0.6652	0.6652
		Energy Sources	0.0010	0.0694	0.0295	0.0010	0.0010	0.0010
		Total Condo Emission Factors	0.8444	0.3744	5.3765	0.0153	0.6662	0.6662
5	City Park	Area Sources	0.2251	0.0000	0.0010	0.0000	0.0000	0.0000
		Energy Sources	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
		Total City Park Emission Factors	0.2251	0.0000	0.0010	0.0000	0.0000	0.0000
6	Golf Course	Area Sources	0.2251	0.0000	0.0010	0.0000	0.0000	0.0000
		Energy Sources	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
		Total Golf Course Emission Factors	0.2251	0.0000	0.0010	0.0000	0.0000	0.0000
7	Library	Area Sources	0.9736	0.0010	0.0010	0.0000	0.0010	0.0010
		Energy Sources	0.0233	0.2118	0.1779	0.0010	0.0161	0.0161
		Total Library Emission Factors	0.9969	0.2128	0.1789	0.0010	0.0171	0.0171
8	Junior College	Area Sources	0.9736	0.0010	0.0010	0.0000	0.0010	0.0010
		Energy Sources	0.0349	0.3168	0.2662	0.0010	0.0241	0.0241
		Total Jr College Emission Factors	1.0085	0.3178	0.2672	0.0010	0.0251	0.0251
9	General Office Building	Area Sources	0.9736	0.0010	0.0010	0.0000	0.0010	0.0010
		Energy Sources	0.0134	0.1218	0.1023	0.0010	0.0010	0.0010
		Total Gen Office Emission Factors	0.9870	0.1228	0.1033	0.0010	0.0020	0.0020
10	Medical Office Building	Area Sources	0.9736	0.0010	0.0010	0.0000	0.0010	0.0010
		Energy Sources	0.0134	0.1218	0.1023	0.0010	0.0010	0.0010
		Total Med Office Emission Factors	0.9870	0.1228	0.1033	0.0010	0.0020	0.0020
11	Convenience Market	Area Sources	0.9736	0.0010	0.0010	0.0000	0.0010	0.0010
		Energy Sources	0.0010	0.0192	0.0161	0.0010	0.0010	0.0010
		Total Market Emission Factors	0.9746	0.0202	0.0171	0.0010	0.0020	0.0020
12	Pharmacy/Drug Store	Area Sources	0.9736	0.0010	0.0010	0.0000	0.0010	0.0010
		Energy Sources	0.0010	0.0192	0.0161	0.0010	0.0010	0.0010
		Total Pharmacy Emission Factors	0.9746	0.0202	0.0171	0.0010	0.0020	0.0020
13	Regional Shopping Center	Area Sources	0.9736	0.0010	0.0010	0.0000	0.0010	0.0010
		Energy Sources	0.0010	0.0192	0.0161	0.0010	0.0010	0.0010
		Total Shop Ctr Emission Factors	0.9746	0.0202	0.0171	0.0010	0.0020	0.0020
14	Strip Mall	Area Sources	0.9736	0.0010	0.0010	0.0000	0.0010	0.0010
		Energy Sources	0.0010	0.0192	0.0161	0.0010	0.0010	0.0010
		Total Mall Emission Factors	0.9746	0.0202	0.0171	0.0010	0.0020	0.0020
15	General Light Industrial	Area Sources	0.9736	0.0010	0.0010	0.0000	0.0010	0.0010
		Energy Sources	0.0233	0.2118	0.1779	0.0010	0.0161	0.0161
		Total Lt Industrial Emission Factors	0.9969	0.2128	0.1789	0.0010	0.0171	0.0171
16	Manufacturing	Area Sources	0.9736	0.0010	0.0010	0.0000	0.0010	0.0010
		Energy Sources	0.0233	0.2118	0.1779	0.0010	0.0161	0.0161
		Total Manufacturing Emission Factors	0.9969	0.2128	0.1789	0.0010	0.0171	0.0171
17	Research & Development	Area Sources	0.9736	0.0010	0.0010	0.0000	0.0010	0.0010
		Energy Sources	0.0233	0.2118	0.1779	0.0010	0.0161	0.0161
		Total R&D Emission Factors	0.9969	0.2128	0.1789	0.0010	0.0171	0.0171

Existing 2018 GHG Emission Factors

	Category	GHG Emission Factors, MT/acre/year					
		Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
1 Single Family Residential	Operational emissions						
	Area Sources	0.20	0.66	0.86	0.00	0.00	0.89
	Energy Sources	0.00	12.24	12.24	0.00	0.00	12.30
	Mobile Sources	0.00	0.00	0.00	0.00	0.00	0.00
	Waste Sources	0.75	0.00	0.75	0.04	0.00	1.86
	Water Sources	0.06	1.25	1.31	0.00	0.00	1.52
	Total SFR Emission Factors	1.01	14.15	15.17	0.04	0.00	16.56
2 Apartments Low Rise	Operational emissions						
	Area Sources	1.07	3.54	4.61	0.00	0.00	4.76
	Energy Sources	0.00	35.57	35.57	0.00	0.00	35.73
	Mobile Sources	0.00	0.00	0.00	0.00	0.00	0.00
	Waste Sources	1.49	0.00	1.49	0.09	0.00	3.70
	Water Sources	0.33	6.65	6.98	0.03	0.00	8.09
	Total Apt Low Rise Emission Factors	2.90	45.76	48.65	0.12	0.00	52.28
3 Apartments Mid Rise	Operational emissions						
	Area Sources	0.00	8.40	8.40	0.00	0.00	8.46
	Energy Sources	0.00	76.18	76.18	0.00	0.00	76.52
	Mobile Sources	0.00	0.00	0.00	0.00	0.00	0.00
	Waste Sources	3.55	0.00	3.55	0.21	0.00	8.79
	Water Sources	0.79	15.80	16.58	0.08	0.00	19.22
	Total Apt Mid Rise Emission Factors	4.33	100.37	104.71	0.29	0.00	112.99
4 Condos/Townhouse	Operational emissions						
	Area Sources	1.07	3.54	4.61	0.00	0.00	4.76
	Energy Sources	0.00	40.36	40.36	0.00	0.00	40.54
	Mobile Sources	0.00	0.00	0.00	0.00	0.00	0.00
	Waste Sources	1.49	0.00	1.49	0.09	0.00	3.70
	Water Sources	0.33	6.65	6.98	0.03	0.00	8.09
	Total Condo Emission Factors	2.90	50.55	53.44	0.12	0.00	57.09
5 City Park	Operational emissions						
	Area Sources	0.00	0.00	0.00	0.00	0.00	0.00
	Energy Sources	0.00	0.00	0.00	0.00	0.00	0.00
	Mobile Sources	0.00	0.00	0.00	0.00	0.00	0.00
	Waste Sources	0.02	0.00	0.02	0.00	0.00	0.05
	Water Sources	0.00	4.22	4.22	0.00	0.00	4.23
	Total City Park Emission Factors	0.02	4.22	4.24	0.00	0.00	4.28
6 Golf Course	Operational emissions						
	Area Sources	0.00	0.00	0.00	0.00	0.00	0.00
	Energy Sources	0.00	0.00	0.00	0.00	0.00	0.00
	Mobile Sources	0.00	0.00	0.00	0.00	0.00	0.00
	Waste Sources	0.19	0.00	0.19	0.01	0.00	0.47
	Water Sources	0.00	4.22	4.22	0.00	0.00	4.23
	Total Golf Course Emission Factors	0.19	4.22	4.41	0.01	0.00	4.70
7 Library	Operational emissions						
	Area Sources	0.00	0.00	0.00	0.00	0.00	0.00
	Energy Sources	0.00	196.13	196.13	0.00	0.00	196.93
	Mobile Sources	0.00	0.00	0.00	0.00	0.00	0.00
	Waste Sources	8.14	0.00	8.14	0.48	0.00	20.18
	Water Sources	0.43	13.20	13.63	0.05	0.00	15.10
	Total Library Emission Factors	8.58	209.33	217.91	0.53	0.00	232.21
8 Junior College	Operational emissions						
	Area Sources	0.00	0.00	0.00	0.00	0.00	0.00
	Energy Sources	0.00	202.02	202.02	0.00	0.00	202.89
	Mobile Sources	0.00	0.00	0.00	0.00	0.00	0.00
	Waste Sources	11.50	0.00	11.50	0.68	0.00	28.48
	Water Sources	0.68	20.69	21.37	0.07	0.00	23.68
	Total Jr College Emission Factors	12.17	222.71	234.88	0.75	0.00	255.04
9 General Office Building	Operational emissions						
	Area Sources	0.00	0.00	0.00	0.00	0.00	0.00
	Energy Sources	0.00	204.49	204.49	0.00	0.00	205.28
	Mobile Sources	0.00	0.00	0.00	0.00	0.00	0.00
	Waste Sources	8.22	0.00	8.22	0.49	0.00	20.37
	Water Sources	2.46	48.92	51.37	0.25	0.00	59.63
	Total General Office Emission Factors	10.68	253.41	264.09	0.74	0.00	285.28

10	Medical Office Building	Operational emissions					
		Area Sources	0.00	0.00	0.00	0.00	0.00	0.00
		Energy Sources	0.00	204.49	204.49	0.00	0.00	205.28
		Mobile Sources	0.00	0.00	0.00	0.00	0.00	0.00
		Waste Sources	95.50	0.00	95.50	5.64	0.00	236.59
		Water Sources	1.73	26.36	28.10	0.18	0.00	33.90
		Total Medical Office Emission Factors	97.23	230.85	328.08	5.82	0.00	475.76
11	Convenience Market	Operational emissions					
		Area Sources	0.00	0.00	0.00	0.00	0.00	0.00
		Energy Sources	0.00	191.18	191.18	0.00	0.00	191.87
		Mobile Sources	0.00	0.00	0.00	0.00	0.00	0.00
		Waste Sources	26.57	0.00	26.57	1.57	0.00	65.83
		Water Sources	1.02	20.39	21.41	0.11	0.00	24.85
		Total Market Emission Factors	27.60	211.57	239.16	1.68	0.00	282.56
12	Pharmacy/Drug Store	Operational emissions					
		Area Sources	0.00	0.00	0.00	0.00	0.00	0.00
		Energy Sources	0.00	191.18	191.18	0.00	0.00	191.87
		Mobile Sources	0.00	0.00	0.00	0.00	0.00	0.00
		Waste Sources	26.59	0.00	26.59	1.57	0.00	65.87
		Water Sources	0.97	19.39	20.36	0.10	0.00	23.64
		Total Pharmacy Emission Factors	27.56	210.57	238.13	1.67	0.00	281.38
13	Regional Shopping Center	Operational emissions					
		Area Sources	0.00	0.00	0.00	0.00	0.00	0.00
		Energy Sources	0.00	191.18	191.18	0.00	0.00	191.87
		Mobile Sources	0.00	0.00	0.00	0.00	0.00	0.00
		Waste Sources	9.28	0.00	9.28	0.55	0.00	23.00
		Water Sources	1.02	20.39	21.41	0.11	0.00	24.85
		Total Shopping Center Emission Factors	10.31	211.57	221.88	0.65	0.00	239.73
14	Strip Mall	Operational emissions					
		Area Sources	0.00	0.00	0.00	0.00	0.00	0.00
		Energy Sources	0.00	191.18	191.18	0.00	0.00	191.87
		Mobile Sources	0.00	0.00	0.00	0.00	0.00	0.00
		Waste Sources	9.28	0.00	9.28	0.55	0.00	23.00
		Water Sources	1.02	20.39	21.41	0.11	0.00	24.85
		Total Stirp Mall Emission Factors	10.31	211.57	221.88	0.65	0.00	239.73
15	General Light Industrial	Operational emissions					
		Area Sources	0.00	0.00	0.00	0.00	0.00	0.00
		Energy Sources	0.00	196.13	196.13	0.00	0.00	196.93
		Mobile Sources	0.00	0.00	0.00	0.00	0.00	0.00
		Waste Sources	10.96	0.00	10.96	0.65	0.00	27.16
		Water Sources	3.20	41.79	44.99	0.33	0.00	55.65
		Total General Light Industrial Emission Factors	14.16	237.92	252.08	0.98	0.00	279.75
16	Manufacturing	Operational emissions					
		Area Sources	0.00	0.00	0.00	0.00	0.00	0.00
		Energy Sources	0.00	196.13	196.13	0.00	0.00	196.93
		Mobile Sources	0.00	0.00	0.00	0.00	0.00	0.00
		Waste Sources	10.96	0.00	10.96	0.65	0.00	27.16
		Water Sources	3.20	41.79	44.99	0.33	0.00	55.65
		Total Manufacturing Emission Factors	14.16	237.92	252.08	0.98	0.00	279.75
17	Research & Development	Operational emissions					
		Area Sources	0.00	0.00	0.00	0.00	0.00	0.00
		Energy Sources	0.00	196.13	196.13	0.00	0.00	196.93
		Mobile Sources	0.00	0.00	0.00	0.00	0.00	0.00
		Waste Sources	0.67	0.00	0.67	0.04	0.00	1.66
		Water Sources	6.80	88.86	95.65	0.70	0.02	118.33
		Total Research & Development Emission Factors	7.47	284.99	292.46	0.74	0.02	316.93

Projected 2040 Emission Factors

		Category	Pollutant Emission Factors, lbs/acre/day					
			ROG	NOX	CO	SOX	PM10	PM2.5
1	Single Family Residential	Area Sources	0.1285	0.0451	0.2644	0.0003	0.0048	0.0048
		Energy Sources	0.0024	0.0208	0.0089	0.0001	0.0017	0.0017
		Total SFR Emission Factors	0.1309	0.0659	0.2733	0.0004	0.0065	0.0065
2	Apartments Low Rise	Area Sources	0.4099	0.2408	1.4102	0.0015	0.0256	0.0256
		Energy Sources	0.0010	0.0660	0.0281	0.0010	0.0010	0.0010
		Total Apt Low Emission Factors	0.4109	0.3068	1.4383	0.0025	0.0266	0.0266
3	Apartments Mid Rise	Area Sources	0.4740	0.4519	0.8858	0.0004	0.0023	0.0023
		Energy Sources	0.0150	0.1285	0.0547	0.0010	0.0104	0.0104
		Total Apt Mid Emission Factors	0.4890	0.5804	0.9405	0.0014	0.0127	0.0127
4	Condos/Townhouse	Area Sources	0.4099	0.2408	1.4102	0.0015	0.0256	0.0256
		Energy Sources	0.0010	0.0694	0.0295	0.0010	0.0010	0.0010
		Total Condo Emission Factors	0.4109	0.3102	1.4397	0.0025	0.0266	0.0266
5	City Park	Area Sources	0.2251	0.0000	0.0010	0.0000	0.0000	0.0000
		Energy Sources	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
		Total City Park Emission Factors	0.2251	0.0000	0.0010	0.0000	0.0000	0.0000
6	Golf Course	Area Sources	0.2251	0.0000	0.0010	0.0000	0.0000	0.0000
		Energy Sources	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
		Total Golf Course Emission Factors	0.2251	0.0000	0.0010	0.0000	0.0000	0.0000
7	Library	Area Sources	0.9735	0.0010	0.0010	0.0000	0.0010	0.0010
		Energy Sources	0.0233	0.2118	0.1779	0.0010	0.0161	0.0161
		Total Library Emission Factors	0.9968	0.2128	0.1789	0.0010	0.0171	0.0171
8	Junior College	Area Sources	0.9735	0.0010	0.0010	0.0000	0.0010	0.0010
		Energy Sources	0.0349	0.3168	0.2662	0.0010	0.0241	0.0241
		Total Jr College Emission Factors	1.0084	0.3178	0.2672	0.0010	0.0251	0.0251
9	General Office Building	Area Sources	0.9735	0.0010	0.0010	0.0000	0.0010	0.0010
		Energy Sources	0.0134	0.1218	0.1023	0.0010	0.0010	0.0010
		Total Gen Office Emission Factors	0.9869	0.1228	0.1033	0.0010	0.0020	0.0020
10	Medical Office Building	Area Sources	0.9735	0.0010	0.0010	0.0000	0.0010	0.0010
		Energy Sources	0.0134	0.1218	0.1023	0.0010	0.0010	0.0010
		Total Med Office Emission Factors	0.9869	0.1228	0.1033	0.0010	0.0020	0.0020
11	Convenience Market	Area Sources	0.9735	0.0010	0.0010	0.0000	0.0010	0.0010
		Energy Sources	0.0010	0.0192	0.0161	0.0010	0.0010	0.0010
		Total Market Emission Factors	0.9745	0.0202	0.0171	0.0010	0.0020	0.0020
12	Pharmacy/Drug Store	Area Sources	0.9735	0.0010	0.0010	0.0000	0.0010	0.0010
		Energy Sources	0.0010	0.0192	0.0161	0.0010	0.0010	0.0010
		Total Pharmacy Emission Factors	0.9745	0.0202	0.0171	0.0010	0.0020	0.0020
13	Regional Shopping Center	Area Sources	0.9735	0.0010	0.0010	0.0000	0.0010	0.0010
		Energy Sources	0.0010	0.0192	0.0161	0.0010	0.0010	0.0010
		Total Shop Ctr Emission Factors	0.9745	0.0202	0.0171	0.0010	0.0020	0.0020
14	Strip Mall	Area Sources	0.9735	0.0010	0.0010	0.0000	0.0010	0.0010
		Energy Sources	0.0010	0.0192	0.0161	0.0010	0.0010	0.0010
		Total Mall Emission Factors	0.9745	0.0202	0.0171	0.0010	0.0020	0.0020
15	General Light Industrial	Area Sources	0.9735	0.0010	0.0010	0.0000	0.0010	0.0010
		Energy Sources	0.0233	0.2118	0.1779	0.0010	0.0161	0.0161
		Total Lt Industrial Emission Factors	0.9968	0.2128	0.1789	0.0010	0.0171	0.0171
16	Manufacturing	Area Sources	0.9735	0.0010	0.0010	0.0000	0.0010	0.0010
		Energy Sources	0.0233	0.2118	0.1779	0.0010	0.0161	0.0161
		Total Manufacturing Emission Factors	0.9968	0.2128	0.1789	0.0010	0.0171	0.0171
17	Research & Development	Area Sources	0.9735	0.0010	0.0010	0.0000	0.0010	0.0010
		Energy Sources	0.0233	0.2118	0.1779	0.0010	0.0161	0.0161
		Total R&D Emission Factors	0.9968	0.2128	0.1789	0.0010	0.0171	0.0171

Projected 2040 GHG Emission Factors

	Category	GHG Emission Factors, MT/acre/year					
		Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
1 Single Family Residential	Operational emissions						
	Area Sources	0.00	0.66	0.66	0.00	0.00	0.67
	Energy Sources	0.00	8.32	8.32	0.00	0.00	8.36
	Mobile Sources	0.00	0.00	0.00	0.00	0.00	0.00
	Waste Sources	0.75	0.00	0.75	0.04	0.00	1.86
	Water Sources	0.06	0.62	0.69	0.01	0.00	0.89
	Total SFR Emission Factors	0.81	9.61	10.42	0.05	0.00	11.78
2 Apartments Low Rise	Operational emissions						
	Area Sources	0.00	3.54	3.54	0.00	0.00	3.56
	Energy Sources	0.00	24.76	24.76	0.00	0.00	24.88
	Mobile Sources	0.00	0.00	0.00	0.00	0.00	0.00
	Waste Sources	1.49	0.00	1.49	0.09	0.00	3.70
	Water Sources	0.33	3.33	3.66	0.03	0.00	4.76
	Total Apt Low Rise Emission Factors	1.82	31.62	33.45	0.12	0.00	36.90
3 Apartments Mid Rise	Operational emissions						
	Area Sources	0.00	8.40	8.40	0.00	0.00	8.46
	Energy Sources	0.00	51.67	51.67	0.00	0.00	51.92
	Mobile Sources	0.00	0.00	0.00	0.00	0.00	0.00
	Waste Sources	3.55	0.00	3.55	0.21	0.00	8.79
	Water Sources	0.79	7.90	8.68	0.08	0.00	11.30
	Total Apt Mid Rise Emission Factors	4.33	67.97	72.30	0.29	0.00	80.47
4 Condos/Townhouse	Operational emissions						
	Area Sources	0.00	3.54	3.54	0.00	0.00	3.56
	Energy Sources	0.00	27.51	27.51	0.00	0.00	27.65
	Mobile Sources	0.00	0.00	0.00	0.00	0.00	0.00
	Waste Sources	1.49	0.00	1.49	0.09	0.00	3.70
	Water Sources	0.33	3.33	3.66	0.03	0.00	4.76
	Total Condo Emission Factors	1.82	34.37	36.20	0.12	0.00	39.67
5 City Park	Operational emissions						
	Area Sources	0.00	0.00	0.00	0.00	0.00	0.00
	Energy Sources	0.00	0.00	0.00	0.00	0.00	0.00
	Mobile Sources	0.00	0.00	0.00	0.00	0.00	0.00
	Waste Sources	0.02	0.00	0.02	0.00	0.00	0.05
	Water Sources	0.00	2.11	2.11	0.00	0.00	2.12
	Total City Park Emission Factors	0.02	2.14	2.16	0.00	0.00	2.19
6 Golf Course	Operational emissions						
	Area Sources	0.00	0.00	0.00	0.00	0.00	0.00
	Energy Sources	0.00	0.00	0.00	0.00	0.00	0.00
	Mobile Sources	0.00	0.00	0.00	0.00	0.00	0.00
	Waste Sources	0.19	0.00	0.19	0.01	0.00	0.47
	Water Sources	0.00	2.11	2.11	0.00	0.00	2.12
	Total Golf Course Emission Factors	0.19	2.14	2.33	0.01	0.00	2.61
7 Library	Operational emissions						
	Area Sources	0.00	0.00	0.00	0.00	0.00	0.00
	Energy Sources	0.00	119.10	119.10	0.00	0.00	119.63
	Mobile Sources	0.00	0.00	0.00	0.00	0.00	0.00
	Waste Sources	8.14	0.00	8.14	0.48	0.00	20.18
	Water Sources	0.43	6.60	7.03	0.04	0.00	8.48
	Total Library Emission Factors	8.58	125.70	134.28	0.53	0.00	148.29
8 Junior College	Operational emissions						
	Area Sources	0.00	0.00	0.00	0.00	0.00	0.00
	Energy Sources	0.00	132.48	132.48	0.00	0.00	133.11
	Mobile Sources	0.00	0.00	0.00	0.00	0.00	0.00
	Waste Sources	11.50	0.00	11.50	0.68	0.00	28.48
	Water Sources	0.68	10.35	11.02	0.07	0.00	13.29
	Total Jr College Emission Factors	12.17	142.83	155.00	0.75	0.00	174.88
9 General Office Building	Operational emissions						
	Area Sources	0.00	0.00	0.00	0.00	0.00	0.00
	Energy Sources	0.00	114.34	114.34	0.00	0.00	114.81
	Mobile Sources	0.00	0.00	0.00	0.00	0.00	0.00
	Waste Sources	8.22	0.00	8.22	0.49	0.00	20.37
	Water Sources	2.46	24.46	26.91	0.25	0.00	35.09
	Total General Office Emission Factors	10.68	138.80	149.48	0.74	0.00	170.27

10	Medical Office Building	Operational emissions					
		Area Sources	0.00	0.00	0.00	0.00	0.00	0.00
		Energy Sources	0.00	114.34	114.34	0.00	0.00	114.81
		Mobile Sources	0.00	0.00	0.00	0.00	0.00	0.00
		Waste Sources	95.50	0.00	95.50	5.64	0.00	236.59
		Water Sources	1.73	13.18	14.92	0.18	0.00	20.67
		Total Medical Office Emission Factors	97.23	127.52	224.76	5.82	0.00	372.07
11	Convenience Market	Operational emissions					
		Area Sources	0.00	0.00	0.00	0.00	0.00	0.00
		Energy Sources	0.00	97.50	97.50	0.00	0.00	97.86
		Mobile Sources	0.00	0.00	0.00	0.00	0.00	0.00
		Waste Sources	26.57	0.00	26.57	1.57	0.00	65.83
		Water Sources	1.02	10.19	11.22	0.11	0.00	14.62
		Total Market Emission Factors	27.60	107.69	135.29	1.68	0.00	178.31
12	Pharmacy/Drug Store	Operational emissions					
		Area Sources	0.00	0.00	0.00	0.00	0.00	0.00
		Energy Sources	0.00	97.50	97.50	0.00	0.00	97.86
		Mobile Sources	0.00	0.00	0.00	0.00	0.00	0.00
		Waste Sources	26.59	0.00	26.59	1.57	0.00	65.87
		Water Sources	0.97	9.69	10.67	0.10	0.00	13.91
		Total Pharmacy Emission Factors	27.56	107.19	134.75	1.67	0.00	177.63
13	Regional Shopping Center	Operational emissions					
		Area Sources	0.00	0.00	0.00	0.00	0.00	0.00
		Energy Sources	0.00	97.50	97.50	0.00	0.00	97.86
		Mobile Sources	0.00	0.00	0.00	0.00	0.00	0.00
		Waste Sources	9.28	0.00	9.28	0.55	0.00	23.00
		Water Sources	1.02	10.19	11.22	0.11	0.00	14.62
		Total Shopping Center Emission Factors	10.31	107.69	118.00	0.65	0.00	135.48
14	Strip Mall	Operational emissions					
		Area Sources	0.00	0.00	0.00	0.00	0.00	0.00
		Energy Sources	0.00	97.50	97.50	0.00	0.00	97.86
		Mobile Sources	0.00	0.00	0.00	0.00	0.00	0.00
		Waste Sources	9.28	0.00	9.28	0.55	0.00	23.00
		Water Sources	1.02	10.19	11.22	0.11	0.00	14.62
		Total Stirp Mall Emission Factors	10.31	107.69	118.00	0.65	0.00	135.48
15	General Light Industrial	Operational emissions					
		Area Sources	0.00	0.00	0.00	0.00	0.00	0.00
		Energy Sources	0.00	119.10	119.10	0.00	0.00	119.63
		Mobile Sources	0.00	0.00	0.00	0.00	0.00	0.00
		Waste Sources	10.96	0.00	10.96	0.65	0.00	27.16
		Water Sources	3.20	20.90	24.09	0.33	0.00	34.68
		Total General Light Industrial Emission Factors	14.16	140.00	154.16	0.98	0.00	181.48
16	Manufacturing	Operational emissions					
		Area Sources	0.00	0.00	0.00	0.00	0.00	0.00
		Energy Sources	0.00	119.10	119.10	0.00	0.00	119.63
		Mobile Sources	0.00	0.00	0.00	0.00	0.00	0.00
		Waste Sources	10.96	0.00	10.96	0.65	0.00	27.16
		Water Sources	3.20	20.90	24.09	0.33	0.00	34.68
		Total Manufacturing Emission Factors	14.16	140.00	154.16	0.98	0.00	181.48
17	Research & Development	Operational emissions					
		Area Sources	0.00	0.00	0.00	0.00	0.00	0.00
		Energy Sources	0.00	119.10	119.10	0.00	0.00	119.63
		Mobile Sources	0.00	0.00	0.00	0.00	0.00	0.00
		Waste Sources	0.67	0.00	0.67	0.04	0.00	1.66
		Water Sources	6.80	44.43	51.22	0.70	0.02	73.74
		Total Research & Development Emission Factors	7.47	163.53	171.00	0.74	0.02	195.04

2018 Area Source Category	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Single Family Residential						
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	4,232.65	1,153.99	20,227.12	20.17	2,515.78	2,515.78
Multi-Family – Low	42.73	11.65	204.20	0.20	25.40	25.40
Multi-Family – Moderate	28.74	7.84	137.36	0.14	17.08	17.08
Neighborhood Serving Centers and Corridors – Low	53.15	14.49	253.99	0.25	31.59	31.59
Neighborhood Serving Centers and Corridors – Moderate	33.99	9.27	162.42	0.16	20.20	20.20
Community Commercial	5.94	1.62	28.41	0.03	3.53	3.53
Transit-Oriented Development - Low	19.02	5.19	90.90	0.09	11.31	11.31
Transit-Oriented Development - Moderate	13.64	3.72	65.17	0.07	8.11	8.11
Neo-Industrial	6.15	1.68	29.41	0.03	3.66	3.66
Industrial	10.14	2.76	48.46	0.05	6.03	6.03
Downtown	24.13	6.58	115.30	0.12	14.34	14.34
Waterfront	0.42	0.11	2.01	0.00	0.25	0.25
Regional Serving Facility	0.42	0.11	2.01	0.00	0.25	0.25
2018 Total	4,471.12	1,219.01	21,366.74	21.31	2,657.52	2,657.52

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Apartments Low Rise						
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	764.24	276.37	4,845.16	12.96	602.77	602.77
Multi-Family – Low	117.99	42.67	748.02	2.00	93.06	93.06
Multi-Family – Moderate	205.81	74.43	1,304.78	3.49	162.32	162.32
Neighborhood Serving Centers and Corridors – Low	78.30	28.31	496.38	1.33	61.75	61.75
Neighborhood Serving Centers and Corridors – Moderate	159.05	57.52	1,008.36	2.70	125.45	125.45
Community Commercial	49.85	18.03	316.03	0.85	39.32	39.32
Transit-Oriented Development - Low	43.38	15.69	275.04	0.74	34.22	34.22
Transit-Oriented Development - Moderate	30.92	11.18	196.06	0.52	24.39	24.39
Neo-Industrial	22.77	8.24	144.37	0.39	17.96	17.96
Industrial	14.29	5.17	90.56	0.24	11.27	11.27
Downtown	200.71	72.58	1,272.47	3.40	158.30	158.30
Waterfront	49.85	18.03	316.03	0.85	39.32	39.32
Regional Serving Facility	17.47	6.32	110.73	0.30	13.78	13.78
2018 Total	1,754.62	634.53	11,123.99	29.75	1,383.89	1,383.89

Apartments Mid Rise	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	372.99	218.43	1,291.57	0.38	23.12	23.12
Multi-Family – Low	57.58	33.72	199.40	0.06	3.57	3.57
Multi-Family – Moderate	100.44	58.82	347.81	0.10	6.23	6.23
Neighborhood Serving Centers and Corridors – Low	38.21	22.38	132.32	0.04	2.37	2.37
Neighborhood Serving Centers and Corridors – Moderate	77.62	45.46	268.80	0.08	4.81	4.81
Community Commercial	24.33	14.25	84.24	0.02	1.51	1.51
Transit-Oriented Development - Low	21.17	12.40	73.32	0.02	1.31	1.31
Transit-Oriented Development - Moderate	15.09	8.84	52.26	0.02	0.94	0.94
Neo-Industrial	11.11	6.51	38.48	0.01	0.69	0.69
Industrial	6.97	4.08	24.14	0.01	0.43	0.43
Downtown	97.96	57.37	339.20	0.10	6.07	6.07
Waterfront	24.33	14.25	84.24	0.02	1.51	1.51
Regional Serving Facility	8.52	4.99	29.52	0.01	0.53	0.53
2018 Total	856.34	501.49	2,965.32	0.88	53.08	53.08

Condos/Townhouse	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	764.24	276.37	4,845.16	12.96	602.77	602.77
Multi-Family – Low	117.99	42.67	748.02	2.00	93.06	93.06
Multi-Family – Moderate	205.81	74.43	1,304.78	3.49	162.32	162.32
Neighborhood Serving Centers and Corridors – Low	78.30	28.31	496.38	1.33	61.75	61.75
Neighborhood Serving Centers and Corridors – Moderate	159.05	57.52	1,008.36	2.70	125.45	125.45
Community Commercial	49.85	18.03	316.03	0.85	39.32	39.32
Transit-Oriented Development - Low	43.38	15.69	275.04	0.74	34.22	34.22
Transit-Oriented Development - Moderate	30.92	11.18	196.06	0.52	24.39	24.39
Neo-Industrial	22.77	8.24	144.37	0.39	17.96	17.96
Industrial	14.29	5.17	90.56	0.24	11.27	11.27
Downtown	200.71	72.58	1,272.47	3.40	158.30	158.30
Waterfront	49.85	18.03	316.03	0.85	39.32	39.32
Regional Serving Facility	17.47	6.32	110.73	0.30	13.78	13.78
2018 Total	1,754.62	634.53	11,123.99	29.75	1,383.89	1,383.89

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
City Park						
Open Space	4.05	0.00	0.04	0.00	0.00	0.00
Founding and Contemporary Neighborhood	11.34	0.00	0.10	0.00	0.00	0.00
Multi-Family – Low	0.08	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.19	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.11	0.00	0.00	0.00	0.00	0.00
Community Commercial	0.18	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Low	0.26	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.21	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.02	0.00	0.00	0.00	0.00	0.00
Industrial	0.25	0.00	0.00	0.00	0.00	0.00
Downtown	0.78	0.00	0.01	0.00	0.00	0.00
Waterfront	0.65	0.00	0.01	0.00	0.00	0.00
Regional Serving Facility	9.60	0.00	0.09	0.00	0.00	0.00
2018 Total	27.74	0.00	0.25	0.00	0.00	0.00

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Golf Course						
Open Space	4.05	0.00	0.02	0.00	0.00	0.00
Founding and Contemporary Neighborhood	11.34	0.00	0.05	0.00	0.00	0.00
Multi-Family – Low	0.08	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.19	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.11	0.00	0.00	0.00	0.00	0.00
Community Commercial	0.18	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Low	0.26	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.21	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.02	0.00	0.00	0.00	0.00	0.00
Industrial	0.25	0.00	0.00	0.00	0.00	0.00
Downtown	0.78	0.00	0.00	0.00	0.00	0.00
Waterfront	0.65	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	9.60	0.00	0.04	0.00	0.00	0.00
2018 Total	27.74	0.00	0.12	0.00	0.00	0.00

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Library						
Open Space	17.53	0.02	0.02	0.00	0.02	0.02
Founding and Contemporary Neighborhood	49.06	0.05	0.05	0.00	0.05	0.05
Multi-Family – Low	0.35	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.82	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.49	0.00	0.00	0.00	0.00	0.00
Community Commercial	0.80	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Low	1.12	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.91	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.11	0.00	0.00	0.00	0.00	0.00
Industrial	1.10	0.00	0.00	0.00	0.00	0.00
Downtown	3.36	0.00	0.00	0.00	0.00	0.00
Waterfront	2.80	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	41.54	0.04	0.04	0.00	0.04	0.04
2018 Total	119.99	0.12	0.12	0.00	0.12	0.12

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Junior College						
Open Space	17.53	0.02	0.02	0.00	0.02	0.02
Founding and Contemporary Neighborhood	49.06	0.05	0.05	0.00	0.05	0.05
Multi-Family – Low	0.35	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.82	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.49	0.00	0.00	0.00	0.00	0.00
Community Commercial	0.80	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Low	1.12	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.91	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.11	0.00	0.00	0.00	0.00	0.00
Industrial	1.10	0.00	0.00	0.00	0.00	0.00
Downtown	3.36	0.00	0.00	0.00	0.00	0.00
Waterfront	2.80	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	41.54	0.04	0.04	0.00	0.04	0.04
2018 Total	119.99	0.12	0.12	0.00	0.12	0.12

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
General Office Building						
Open Space	0.42	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	7.93	0.01	0.01	0.00	0.01	0.01
Multi-Family – Low	0.02	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	1.85	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	2.94	0.00	0.00	0.00	0.00	0.00
Community Commercial	3.81	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Low	2.23	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.58	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.16	0.00	0.00	0.00	0.00	0.00
Industrial	4.12	0.00	0.00	0.00	0.00	0.00
Downtown	43.58	0.04	0.04	0.00	0.04	0.04
Waterfront	8.63	0.01	0.01	0.00	0.01	0.01
Regional Serving Facility	12.96	0.01	0.01	0.00	0.01	0.01
2018 Total						

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Medical Office Building						
Open Space	0.42	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	7.93	0.01	0.01	0.00	0.01	0.01
Multi-Family – Low	0.02	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	1.85	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	2.94	0.00	0.00	0.00	0.00	0.00
Community Commercial	3.81	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Low	2.23	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.58	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.16	0.00	0.00	0.00	0.00	0.00
Industrial	4.12	0.00	0.00	0.00	0.00	0.00
Downtown	43.58	0.04	0.04	0.00	0.04	0.04
Waterfront	8.63	0.01	0.01	0.00	0.01	0.01
Regional Serving Facility	12.96	0.01	0.01	0.00	0.01	0.01
2018 Total	89.23	0.09	0.09	0.00	0.09	0.09

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Convenience Market						
Open Space	3.79	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	26.84	0.03	0.03	0.00	0.03	0.03
Multi-Family – Low	0.24	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	10.56	0.01	0.01	0.00	0.01	0.01
Neighborhood Serving Centers and Corridors – Moderate	11.85	0.01	0.01	0.00	0.01	0.01
Community Commercial	23.88	0.02	0.02	0.00	0.02	0.02
Transit-Oriented Development - Low	5.58	0.01	0.01	0.00	0.01	0.01
Transit-Oriented Development - Moderate	4.40	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	2.15	0.00	0.00	0.00	0.00	0.00
Industrial	1.79	0.00	0.00	0.00	0.00	0.00
Downtown	10.92	0.01	0.01	0.00	0.01	0.01
Waterfront	11.66	0.01	0.01	0.00	0.01	0.01
Regional Serving Facility	3.77	0.00	0.00	0.00	0.00	0.00
2018 Total	117.43	0.12	0.12	0.00	0.12	0.12

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Pharmacy/Drug Store						
Open Space	3.79	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	26.84	0.03	0.03	0.00	0.03	0.03
Multi-Family – Low	0.24	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	10.56	0.01	0.01	0.00	0.01	0.01
Neighborhood Serving Centers and Corridors – Moderate	11.85	0.01	0.01	0.00	0.01	0.01
Community Commercial	23.88	0.02	0.02	0.00	0.02	0.02
Transit-Oriented Development - Low	5.58	0.01	0.01	0.00	0.01	0.01
Transit-Oriented Development - Moderate	4.40	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	2.15	0.00	0.00	0.00	0.00	0.00
Industrial	1.79	0.00	0.00	0.00	0.00	0.00
Downtown	10.92	0.01	0.01	0.00	0.01	0.01
Waterfront	11.66	0.01	0.01	0.00	0.01	0.01
Regional Serving Facility	3.77	0.00	0.00	0.00	0.00	0.00
2018 Total	117.43	0.12	0.12	0.00	0.12	0.12

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Regional Shopping Center						
Open Space	3.79	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	26.84	0.03	0.03	0.00	0.03	0.03
Multi-Family – Low	0.24	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	10.56	0.01	0.01	0.00	0.01	0.01
Neighborhood Serving Centers and Corridors – Moderate	11.85	0.01	0.01	0.00	0.01	0.01
Community Commercial	23.88	0.02	0.02	0.00	0.02	0.02
Transit-Oriented Development - Low	5.58	0.01	0.01	0.00	0.01	0.01
Transit-Oriented Development - Moderate	4.40	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	2.15	0.00	0.00	0.00	0.00	0.00
Industrial	1.79	0.00	0.00	0.00	0.00	0.00
Downtown	10.92	0.01	0.01	0.00	0.01	0.01
Waterfront	11.66	0.01	0.01	0.00	0.01	0.01
Regional Serving Facility	3.77	0.00	0.00	0.00	0.00	0.00
2018 Total	117.43	0.12	0.12	0.00	0.12	0.12

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Strip Mall						
Open Space	3.79	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	26.84	0.03	0.03	0.00	0.03	0.03
Multi-Family – Low	0.24	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	10.56	0.01	0.01	0.00	0.01	0.01
Neighborhood Serving Centers and Corridors – Moderate	11.85	0.01	0.01	0.00	0.01	0.01
Community Commercial	23.88	0.02	0.02	0.00	0.02	0.02
Transit-Oriented Development - Low	5.58	0.01	0.01	0.00	0.01	0.01
Transit-Oriented Development - Moderate	4.40	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	2.15	0.00	0.00	0.00	0.00	0.00
Industrial	1.79	0.00	0.00	0.00	0.00	0.00
Downtown	10.92	0.01	0.01	0.00	0.01	0.01
Waterfront	11.66	0.01	0.01	0.00	0.01	0.01
Regional Serving Facility	3.77	0.00	0.00	0.00	0.00	0.00
2018 Total	117.43	0.12	0.12	0.00	0.12	0.12

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
General Light Industrial						
Open Space	8.20	0.01	0.01	0.00	0.01	0.01
Founding and Contemporary Neighborhood	4.87	0.01	0.01	0.00	0.01	0.01
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.74	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	1.26	0.00	0.00	0.00	0.00	0.00
Community Commercial	7.91	0.01	0.01	0.00	0.01	0.01
Transit-Oriented Development - Low	0.06	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.04	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	9.77	0.01	0.01	0.00	0.01	0.01
Industrial	30.30	0.03	0.03	0.00	0.03	0.03
Downtown	0.37	0.00	0.00	0.00	0.00	0.00
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	67.37	0.07	0.07	0.00	0.07	0.07
2018 Total	130.91	0.13	0.13	0.00	0.13	0.13

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Manufacturing						
Open Space	8.20	0.01	0.01	0.00	0.01	0.01
Founding and Contemporary Neighborhood	4.87	0.01	0.01	0.00	0.01	0.01
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.74	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	1.26	0.00	0.00	0.00	0.00	0.00
Community Commercial	7.91	0.01	0.01	0.00	0.01	0.01
Transit-Oriented Development - Low	0.06	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.04	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	9.77	0.01	0.01	0.00	0.01	0.01
Industrial	30.30	0.03	0.03	0.00	0.03	0.03
Downtown	0.37	0.00	0.00	0.00	0.00	0.00
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	67.37	0.07	0.07	0.00	0.07	0.07
2018 Total	130.91	0.13	0.13	0.00	0.13	0.13

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Research & Development						
Open Space	8.20	0.01	0.01	0.00	0.01	0.01
Founding and Contemporary Neighborhood	4.87	0.01	0.01	0.00	0.01	0.01
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.74	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	1.26	0.00	0.00	0.00	0.00	0.00
Community Commercial	7.91	0.01	0.01	0.00	0.01	0.01
Transit-Oriented Development - Low	0.06	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.04	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	9.77	0.01	0.01	0.00	0.01	0.01
Industrial	30.30	0.03	0.03	0.00	0.03	0.03
Downtown	0.37	0.00	0.00	0.00	0.00	0.00
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	67.37	0.07	0.07	0.00	0.07	0.07
2018 Total	130.91	0.13	0.13	0.00	0.13	0.13

2018 Energy Source Category	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Single Family Residential						
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	49.23	419.63	178.75	2.62	33.89	33.89
Multi-Family – Low	0.50	4.24	1.80	0.03	0.34	0.34
Multi-Family – Moderate	0.33	2.85	1.21	0.02	0.23	0.23
Neighborhood Serving Centers and Corridors – Low	0.62	5.27	2.24	0.03	0.43	0.43
Neighborhood Serving Centers and Corridors – Moderate	0.40	3.37	1.44	0.02	0.27	0.27
Community Commercial	0.07	0.59	0.25	0.00	0.05	0.05
Transit-Oriented Development - Low	0.22	1.89	0.80	0.01	0.15	0.15
Transit-Oriented Development - Moderate	0.16	1.35	0.58	0.01	0.11	0.11
Neo-Industrial	0.07	0.61	0.26	0.00	0.05	0.05
Industrial	0.12	1.01	0.43	0.01	0.08	0.08
Downtown	0.28	2.39	1.02	0.01	0.19	0.19
Waterfront	0.00	0.04	0.02	0.00	0.00	0.00
Regional Serving Facility	0.00	0.04	0.02	0.00	0.00	0.00
2018 Total	52.00	443.28	188.82	2.77	35.80	35.80

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Apartments Low Rise						
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	7.00	59.81	25.46	0.38	4.84	4.84
Multi-Family – Low	1.08	9.23	3.93	0.06	0.75	0.75
Multi-Family – Moderate	1.88	16.11	6.86	0.10	1.30	1.30
Neighborhood Serving Centers and Corridors – Low	0.72	6.13	2.61	0.04	0.50	0.50
Neighborhood Serving Centers and Corridors – Moderate	1.46	12.45	5.30	0.08	1.01	1.01
Community Commercial	0.46	3.90	1.66	0.02	0.32	0.32
Transit-Oriented Development - Low	0.40	3.39	1.45	0.02	0.27	0.27
Transit-Oriented Development - Moderate	0.28	2.42	1.03	0.02	0.20	0.20
Neo-Industrial	0.21	1.78	0.76	0.01	0.14	0.14
Industrial	0.13	1.12	0.48	0.01	0.09	0.09
Downtown	1.84	15.71	6.69	0.10	1.27	1.27
Waterfront	0.46	3.90	1.66	0.02	0.32	0.32
Regional Serving Facility	0.16	1.37	0.58	0.01	0.11	0.11
2018 Total	16.06	137.31	58.46	0.87	11.11	11.11

Apartments Mid Rise	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	5.72	49.03	20.87	0.38	3.97	3.97
Multi-Family – Low	0.88	7.57	3.22	0.06	0.61	0.61
Multi-Family – Moderate	1.54	13.20	5.62	0.10	1.07	1.07
Neighborhood Serving Centers and Corridors – Low	0.59	5.02	2.14	0.04	0.41	0.41
Neighborhood Serving Centers and Corridors – Moderate	1.19	10.20	4.34	0.08	0.83	0.83
Community Commercial	0.37	3.20	1.36	0.02	0.26	0.26
Transit-Oriented Development - Low	0.32	2.78	1.18	0.02	0.23	0.23
Transit-Oriented Development - Moderate	0.23	1.98	0.84	0.02	0.16	0.16
Neo-Industrial	0.17	1.46	0.62	0.01	0.12	0.12
Industrial	0.11	0.92	0.39	0.01	0.07	0.07
Downtown	1.50	12.88	5.48	0.10	1.04	1.04
Waterfront	0.37	3.20	1.36	0.02	0.26	0.26
Regional Serving Facility	0.13	1.12	0.48	0.01	0.09	0.09
2018 Total	13.14	112.56	47.92	0.88	9.11	9.11

Condos/Townhouse	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.91	62.89	26.73	0.91	0.91	0.91
Multi-Family – Low	0.14	9.71	4.13	0.14	0.14	0.14
Multi-Family – Moderate	0.24	16.94	7.20	0.24	0.24	0.24
Neighborhood Serving Centers and Corridors – Low	0.09	6.44	2.74	0.09	0.09	0.09
Neighborhood Serving Centers and Corridors – Moderate	0.19	13.09	5.56	0.19	0.19	0.19
Community Commercial	0.06	4.10	1.74	0.06	0.06	0.06
Transit-Oriented Development - Low	0.05	3.57	1.52	0.05	0.05	0.05
Transit-Oriented Development - Moderate	0.04	2.54	1.08	0.04	0.04	0.04
Neo-Industrial	0.03	1.87	0.80	0.03	0.03	0.03
Industrial	0.02	1.18	0.50	0.02	0.02	0.02
Downtown	0.24	16.52	7.02	0.24	0.24	0.24
Waterfront	0.06	4.10	1.74	0.06	0.06	0.06
Regional Serving Facility	0.02	1.44	0.61	0.02	0.02	0.02
2018 Total	2.08	144.38	61.37	2.08	2.08	2.08

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
City Park						
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Community Commercial	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Low	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Downtown	0.00	0.00	0.00	0.00	0.00	0.00
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	0.00	0.00	0.00	0.00	0.00	0.00
2018 Total	0.00	0.00	0.00	0.00	0.00	0.00

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Golf Course						
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Community Commercial	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Low	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Downtown	0.00	0.00	0.00	0.00	0.00	0.00
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	0.00	0.00	0.00	0.00	0.00	0.00
2018 Total	0.00	0.00	0.00	0.00	0.00	0.00

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Library						
Open Space	0.42	3.81	3.20	0.02	0.29	0.29
Founding and Contemporary Neighborhood	1.17	10.67	8.97	0.05	0.81	0.81
Multi-Family – Low	0.01	0.08	0.06	0.00	0.01	0.01
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.02	0.18	0.15	0.00	0.01	0.01
Neighborhood Serving Centers and Corridors – Moderate	0.01	0.11	0.09	0.00	0.01	0.01
Community Commercial	0.02	0.17	0.15	0.00	0.01	0.01
Transit-Oriented Development - Low	0.03	0.24	0.20	0.00	0.02	0.02
Transit-Oriented Development - Moderate	0.02	0.20	0.17	0.00	0.02	0.02
Neo-Industrial	0.00	0.02	0.02	0.00	0.00	0.00
Industrial	0.03	0.24	0.20	0.00	0.02	0.02
Downtown	0.08	0.73	0.61	0.00	0.06	0.06
Waterfront	0.07	0.61	0.51	0.00	0.05	0.05
Regional Serving Facility	0.99	9.04	7.59	0.04	0.69	0.69
2018 Total	2.87	26.10	21.93	0.12	1.98	1.98

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Junior College						
Open Space	0.63	5.71	4.79	0.02	0.43	0.43
Founding and Contemporary Neighborhood	1.76	15.96	13.41	0.05	1.21	1.21
Multi-Family – Low	0.01	0.12	0.10	0.00	0.01	0.01
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.03	0.27	0.22	0.00	0.02	0.02
Neighborhood Serving Centers and Corridors – Moderate	0.02	0.16	0.13	0.00	0.01	0.01
Community Commercial	0.03	0.26	0.22	0.00	0.02	0.02
Transit-Oriented Development - Low	0.04	0.36	0.31	0.00	0.03	0.03
Transit-Oriented Development - Moderate	0.03	0.30	0.25	0.00	0.02	0.02
Neo-Industrial	0.00	0.03	0.03	0.00	0.00	0.00
Industrial	0.04	0.36	0.30	0.00	0.03	0.03
Downtown	0.12	1.09	0.92	0.00	0.08	0.08
Waterfront	0.10	0.91	0.77	0.00	0.07	0.07
Regional Serving Facility	1.49	13.52	11.36	0.04	1.03	1.03
2018 Total	4.30	39.04	32.81	0.12	2.97	2.97

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
General Office Building						
Open Space	0.01	0.05	0.04	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.11	0.99	0.83	0.01	0.01	0.01
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.03	0.23	0.19	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.04	0.37	0.31	0.00	0.00	0.00
Community Commercial	0.05	0.48	0.40	0.00	0.00	0.00
Transit-Oriented Development - Low	0.03	0.28	0.23	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.01	0.07	0.06	0.00	0.00	0.00
Neo-Industrial	0.00	0.02	0.02	0.00	0.00	0.00
Industrial	0.06	0.52	0.43	0.00	0.00	0.00
Downtown	0.60	5.45	4.58	0.04	0.04	0.04
Waterfront	0.12	1.08	0.91	0.01	0.01	0.01
Regional Serving Facility	12.96	0.01	0.01	0.00	0.01	0.01
2018 Total	14.01	9.55	8.03	0.08	0.09	0.09

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Medical Office Building						
Open Space	0.01	0.05	0.04	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.11	0.99	0.83	0.01	0.01	0.01
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.03	0.23	0.19	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.04	0.37	0.31	0.00	0.00	0.00
Community Commercial	0.05	0.48	0.40	0.00	0.00	0.00
Transit-Oriented Development - Low	0.03	0.28	0.23	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.01	0.07	0.06	0.00	0.00	0.00
Neo-Industrial	0.00	0.02	0.02	0.00	0.00	0.00
Industrial	0.06	0.52	0.43	0.00	0.00	0.00
Downtown	0.60	5.45	4.58	0.04	0.04	0.04
Waterfront	0.12	1.08	0.91	0.01	0.01	0.01
Regional Serving Facility	0.18	1.62	1.36	0.01	0.01	0.01
2018 Total	1.23	11.16	9.38	0.09	0.09	0.09

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Convenience Market						
Open Space	0.00	0.07	0.06	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.03	0.53	0.44	0.03	0.03	0.03
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.01	0.21	0.17	0.01	0.01	0.01
Neighborhood Serving Centers and Corridors – Moderate	0.01	0.23	0.20	0.01	0.01	0.01
Community Commercial	0.02	0.47	0.39	0.02	0.02	0.02
Transit-Oriented Development - Low	0.01	0.11	0.09	0.01	0.01	0.01
Transit-Oriented Development - Moderate	0.00	0.09	0.07	0.00	0.00	0.00
Neo-Industrial	0.00	0.04	0.04	0.00	0.00	0.00
Industrial	0.00	0.04	0.03	0.00	0.00	0.00
Downtown	0.01	0.22	0.18	0.01	0.01	0.01
Waterfront	0.01	0.23	0.19	0.01	0.01	0.01
Regional Serving Facility	0.00	0.07	0.06	0.00	0.00	0.00
2018 Total	0.12	2.32	1.94	0.12	0.12	0.12

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Pharmacy/Drug Store						
Open Space	0.00	0.07	0.06	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.03	0.53	0.44	0.03	0.03	0.03
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.01	0.21	0.17	0.01	0.01	0.01
Neighborhood Serving Centers and Corridors – Moderate	0.01	0.23	0.20	0.01	0.01	0.01
Community Commercial	0.02	0.47	0.39	0.02	0.02	0.02
Transit-Oriented Development - Low	0.01	0.11	0.09	0.01	0.01	0.01
Transit-Oriented Development - Moderate	0.00	0.09	0.07	0.00	0.00	0.00
Neo-Industrial	0.00	0.04	0.04	0.00	0.00	0.00
Industrial	0.00	0.04	0.03	0.00	0.00	0.00
Downtown	0.01	0.22	0.18	0.01	0.01	0.01
Waterfront	0.01	0.23	0.19	0.01	0.01	0.01
Regional Serving Facility	0.00	0.07	0.06	0.00	0.00	0.00
2018 Total	0.12	2.32	1.94	0.12	0.12	0.12

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Regional Shopping Center						
Open Space	0.00	0.07	0.06	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.03	0.53	0.44	0.03	0.03	0.03
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.01	0.21	0.17	0.01	0.01	0.01
Neighborhood Serving Centers and Corridors – Moderate	0.01	0.23	0.20	0.01	0.01	0.01
Community Commercial	0.02	0.47	0.39	0.02	0.02	0.02
Transit-Oriented Development - Low	0.01	0.11	0.09	0.01	0.01	0.01
Transit-Oriented Development - Moderate	0.00	0.09	0.07	0.00	0.00	0.00
Neo-Industrial	0.00	0.04	0.04	0.00	0.00	0.00
Industrial	0.00	0.04	0.03	0.00	0.00	0.00
Downtown	0.01	0.22	0.18	0.01	0.01	0.01
Waterfront	0.01	0.23	0.19	0.01	0.01	0.01
Regional Serving Facility	0.00	0.07	0.06	0.00	0.00	0.00
2018 Total	0.12	2.32	1.94	0.12	0.12	0.12

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Strip Mall						
Open Space	0.00	0.07	0.06	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.03	0.53	0.44	0.03	0.03	0.03
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.01	0.21	0.17	0.01	0.01	0.01
Neighborhood Serving Centers and Corridors – Moderate	0.01	0.23	0.20	0.01	0.01	0.01
Community Commercial	0.02	0.47	0.39	0.02	0.02	0.02
Transit-Oriented Development - Low	0.01	0.11	0.09	0.01	0.01	0.01
Transit-Oriented Development - Moderate	0.00	0.09	0.07	0.00	0.00	0.00
Neo-Industrial	0.00	0.04	0.04	0.00	0.00	0.00
Industrial	0.00	0.04	0.03	0.00	0.00	0.00
Downtown	0.01	0.22	0.18	0.01	0.01	0.01
Waterfront	0.01	0.23	0.19	0.01	0.01	0.01
Regional Serving Facility	0.00	0.07	0.06	0.00	0.00	0.00
2018 Total	0.12	2.32	1.94	0.12	0.12	0.12

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
General Light Industrial						
Open Space	0.20	1.78	1.50	0.01	0.14	0.14
Founding and Contemporary Neighborhood	0.12	1.06	0.89	0.01	0.08	0.08
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.02	0.16	0.14	0.00	0.01	0.01
Neighborhood Serving Centers and Corridors – Moderate	0.03	0.27	0.23	0.00	0.02	0.02
Community Commercial	0.19	1.72	1.45	0.01	0.13	0.13
Transit-Oriented Development - Low	0.00	0.01	0.01	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.00	0.01	0.01	0.00	0.00	0.00
Neo-Industrial	0.23	2.13	1.79	0.01	0.16	0.16
Industrial	0.73	6.59	5.54	0.03	0.50	0.50
Downtown	0.01	0.08	0.07	0.00	0.01	0.01
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	1.61	14.66	12.31	0.07	1.11	1.11
2018 Total	3.13	28.48	23.92	0.13	2.16	2.16

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Manufacturing						
Open Space	0.20	1.78	1.50	0.01	0.14	0.14
Founding and Contemporary Neighborhood	0.12	1.06	0.89	0.01	0.08	0.08
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.02	0.16	0.14	0.00	0.01	0.01
Neighborhood Serving Centers and Corridors – Moderate	0.03	0.27	0.23	0.00	0.02	0.02
Community Commercial	0.19	1.72	1.45	0.01	0.13	0.13
Transit-Oriented Development - Low	0.00	0.01	0.01	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.00	0.01	0.01	0.00	0.00	0.00
Neo-Industrial	0.23	2.13	1.79	0.01	0.16	0.16
Industrial	0.73	6.59	5.54	0.03	0.50	0.50
Downtown	0.01	0.08	0.07	0.00	0.01	0.01
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	1.61	14.66	12.31	0.07	1.11	1.11
2018 Total	3.13	28.48	23.92	0.13	2.16	2.16

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Research & Development						
Open Space	0.20	1.78	1.50	0.01	0.14	0.14
Founding and Contemporary Neighborhood	0.12	1.06	0.89	0.01	0.08	0.08
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.02	0.16	0.14	0.00	0.01	0.01
Neighborhood Serving Centers and Corridors – Moderate	0.03	0.27	0.23	0.00	0.02	0.02
Community Commercial	0.19	1.72	1.45	0.01	0.13	0.13
Transit-Oriented Development - Low	0.00	0.01	0.01	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.00	0.01	0.01	0.00	0.00	0.00
Neo-Industrial	0.23	2.13	1.79	0.01	0.16	0.16
Industrial	0.73	6.59	5.54	0.03	0.50	0.50
Downtown	0.01	0.08	0.07	0.00	0.01	0.01
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	1.61	14.66	12.31	0.07	1.11	1.11
2018 Total	3.13	28.48	23.92	0.13	2.16	2.16

2040 Area Source Category	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Single Family Residential						
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	2,647.01	929.03	5,446.46	5.77	98.67	98.67
Multi-Family – Low	26.17	9.19	53.85	0.06	0.98	0.98
Multi-Family – Moderate	17.60	6.18	36.22	0.04	0.66	0.66
Neighborhood Serving Centers and Corridors – Low	32.55	11.43	66.98	0.07	1.21	1.21
Neighborhood Serving Centers and Corridors – Moderate	20.82	7.31	42.83	0.05	0.78	0.78
Community Commercial	3.64	1.28	7.49	0.01	0.14	0.14
Transit-Oriented Development - Low	11.65	4.09	23.97	0.03	0.43	0.43
Transit-Oriented Development - Moderate	8.35	2.93	17.19	0.02	0.31	0.31
Neo-Industrial	3.77	1.32	7.76	0.01	0.14	0.14
Industrial	6.21	2.18	12.78	0.01	0.23	0.23
Downtown	14.78	5.19	30.41	0.03	0.55	0.55
Waterfront	0.26	0.09	0.53	0.00	0.01	0.01
Regional Serving Facility	0.26	0.09	0.53	0.00	0.01	0.01
2040 Total	2,793.08	980.29	5,747.00	6.09	104.12	104.12

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Apartments Low Rise						
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	379.30	222.83	1,304.93	1.40	23.69	23.69
Multi-Family – Low	67.15	39.45	231.01	0.25	4.19	4.19
Multi-Family – Moderate	119.62	70.27	411.54	0.44	7.47	7.47
Neighborhood Serving Centers and Corridors – Low	47.86	28.11	164.64	0.18	2.99	2.99
Neighborhood Serving Centers and Corridors – Moderate	96.90	56.92	333.37	0.36	6.05	6.05
Community Commercial	24.23	14.23	83.35	0.09	1.51	1.51
Transit-Oriented Development - Low	65.95	38.74	226.90	0.24	4.12	4.12
Transit-Oriented Development - Moderate	69.68	40.94	239.73	0.26	4.35	4.35
Neo-Industrial	11.92	7.00	41.01	0.04	0.74	0.74
Industrial	6.94	4.08	23.89	0.03	0.43	0.43
Downtown	140.18	82.35	482.26	0.52	8.75	8.75
Waterfront	25.08	14.73	86.29	0.09	1.57	1.57
Regional Serving Facility	30.66	18.01	105.47	0.11	1.91	1.91
2040 Total	1,085.47	637.67	3,734.39	4.00	67.79	67.79

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Apartments Mid Rise						
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	184.68	176.07	345.13	0.16	0.90	0.90
Multi-Family – Low	32.69	31.17	61.10	0.03	0.16	0.16
Multi-Family – Moderate	58.24	55.53	108.84	0.05	0.28	0.28
Neighborhood Serving Centers and Corridors – Low	23.30	22.21	43.54	0.02	0.11	0.11
Neighborhood Serving Centers and Corridors – Moderate	47.18	44.98	88.17	0.04	0.23	0.23
Community Commercial	11.80	11.25	22.04	0.01	0.06	0.06
Transit-Oriented Development - Low	32.11	30.61	60.01	0.03	0.16	0.16
Transit-Oriented Development - Moderate	33.93	32.35	63.40	0.03	0.16	0.16
Neo-Industrial	5.80	5.53	10.85	0.00	0.03	0.03
Industrial	3.38	3.22	6.32	0.00	0.02	0.02
Downtown	68.25	65.07	127.55	0.06	0.33	0.33
Waterfront	12.21	11.64	22.82	0.01	0.06	0.06
Regional Serving Facility	14.93	14.23	27.89	0.01	0.07	0.07
2040 Total	528.51	503.87	987.67	0.45	2.56	2.56

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Condos/Townhouse						
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	379.30	222.83	1,304.93	1.40	23.69	23.69
Multi-Family – Low	67.15	39.45	231.01	0.25	4.19	4.19
Multi-Family – Moderate	119.62	70.27	411.54	0.44	7.47	7.47
Neighborhood Serving Centers and Corridors – Low	47.86	28.11	164.64	0.18	2.99	2.99
Neighborhood Serving Centers and Corridors – Moderate	96.90	56.92	333.37	0.36	6.05	6.05
Community Commercial	24.23	14.23	83.35	0.09	1.51	1.51
Transit-Oriented Development - Low	65.95	38.74	226.90	0.24	4.12	4.12
Transit-Oriented Development - Moderate	69.68	40.94	239.73	0.26	4.35	4.35
Neo-Industrial	11.92	7.00	41.01	0.04	0.74	0.74
Industrial	6.94	4.08	23.89	0.03	0.43	0.43
Downtown	140.18	82.35	482.26	0.52	8.75	8.75
Waterfront	25.08	14.73	86.29	0.09	1.57	1.57
Regional Serving Facility	30.66	18.01	105.47	0.11	1.91	1.91
2040 Total	1,085.47	637.67	3,734.39	4.00	67.79	67.79

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
City Park						
Open Space	4.21	0.00	0.02	0.00	0.00	0.00
Founding and Contemporary Neighborhood	11.42	0.00	0.05	0.00	0.00	0.00
Multi-Family – Low	0.12	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.23	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.19	0.00	0.00	0.00	0.00	0.00
Community Commercial	0.18	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Low	0.44	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.44	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.03	0.00	0.00	0.00	0.00	0.00
Industrial	0.25	0.00	0.00	0.00	0.00	0.00
Downtown	0.95	0.00	0.00	0.00	0.00	0.00
Waterfront	0.65	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	9.70	0.00	0.04	0.00	0.00	0.00
2040 Total	28.83	0.00	0.13	0.00	0.00	0.00

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Golf Course						
Open Space	4.21	0.00	0.02	0.00	0.00	0.00
Founding and Contemporary Neighborhood	11.42	0.00	0.05	0.00	0.00	0.00
Multi-Family – Low	0.12	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.23	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.19	0.00	0.00	0.00	0.00	0.00
Community Commercial	0.18	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Low	0.44	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.44	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.03	0.00	0.00	0.00	0.00	0.00
Industrial	0.25	0.00	0.00	0.00	0.00	0.00
Downtown	0.95	0.00	0.00	0.00	0.00	0.00
Waterfront	0.65	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	9.70	0.00	0.04	0.00	0.00	0.00
2040 Total	28.83	0.00	0.13	0.00	0.00	0.00

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Library						
Open Space	18.22	0.02	0.02	0.00	0.02	0.02
Founding and Contemporary Neighborhood	49.39	0.05	0.05	0.00	0.05	0.05
Multi-Family – Low	0.53	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.99	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.84	0.00	0.00	0.00	0.00	0.00
Community Commercial	0.80	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Low	1.92	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	1.89	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.12	0.00	0.00	0.00	0.00	0.00
Industrial	1.10	0.00	0.00	0.00	0.00	0.00
Downtown	4.12	0.00	0.00	0.00	0.00	0.00
Waterfront	2.82	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	41.93	0.04	0.04	0.00	0.04	0.04
2040 Total	124.67	0.13	0.13	0.00	0.13	0.13

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Junior College						
Open Space	18.22	0.02	0.02	0.00	0.02	0.02
Founding and Contemporary Neighborhood	49.39	0.05	0.05	0.00	0.05	0.05
Multi-Family – Low	0.53	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.99	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.84	0.00	0.00	0.00	0.00	0.00
Community Commercial	0.80	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Low	1.92	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	1.89	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.12	0.00	0.00	0.00	0.00	0.00
Industrial	1.10	0.00	0.00	0.00	0.00	0.00
Downtown	4.12	0.00	0.00	0.00	0.00	0.00
Waterfront	2.82	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	41.93	0.04	0.04	0.00	0.04	0.04
2040 Total	124.67	0.13	0.13	0.00	0.13	0.13

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
General Office Building						
Open Space	0.46	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	8.06	0.01	0.01	0.00	0.01	0.01
Multi-Family – Low	0.01	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.01	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	1.94	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	3.04	0.00	0.00	0.00	0.00	0.00
Community Commercial	4.03	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Low	2.12	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.50	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.18	0.00	0.00	0.00	0.00	0.00
Industrial	4.27	0.00	0.00	0.00	0.00	0.00
Downtown	60.25	0.06	0.06	0.00	0.06	0.06
Waterfront	9.26	0.01	0.01	0.00	0.01	0.01
Regional Serving Facility	12.96	0.01	0.01	0.00	0.01	0.01
2040 Total						

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Medical Office Building						
Open Space	0.46	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	8.06	0.01	0.01	0.00	0.01	0.01
Multi-Family – Low	0.01	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.01	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	1.94	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	3.04	0.00	0.00	0.00	0.00	0.00
Community Commercial	4.03	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Low	2.12	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.50	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.18	0.00	0.00	0.00	0.00	0.00
Industrial	4.27	0.00	0.00	0.00	0.00	0.00
Downtown	60.25	0.06	0.06	0.00	0.06	0.06
Waterfront	9.26	0.01	0.01	0.00	0.01	0.01
Regional Serving Facility	24.26	0.02	0.02	0.00	0.02	0.02
2040 Total	118.40	0.12	0.12	0.00	0.12	0.12

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Convenience Market						
Open Space	4.17	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	27.26	0.03	0.03	0.00	0.03	0.03
Multi-Family – Low	0.11	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.07	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	11.08	0.01	0.01	0.00	0.01	0.01
Neighborhood Serving Centers and Corridors – Moderate	12.29	0.01	0.01	0.00	0.01	0.01
Community Commercial	25.23	0.03	0.03	0.00	0.03	0.03
Transit-Oriented Development - Low	5.32	0.01	0.01	0.00	0.01	0.01
Transit-Oriented Development - Moderate	3.81	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	2.44	0.00	0.00	0.00	0.00	0.00
Industrial	1.85	0.00	0.00	0.00	0.00	0.00
Downtown	13.59	0.01	0.01	0.00	0.01	0.01
Waterfront	12.52	0.01	0.01	0.00	0.01	0.01
Regional Serving Facility	7.05	0.01	0.01	0.00	0.01	0.01
2040 Total	126.78	0.13	0.13	0.00	0.13	0.13

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Pharmacy/Drug Store						
Open Space	4.17	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	27.26	0.03	0.03	0.00	0.03	0.03
Multi-Family – Low	0.11	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.07	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	11.08	0.01	0.01	0.00	0.01	0.01
Neighborhood Serving Centers and Corridors – Moderate	12.29	0.01	0.01	0.00	0.01	0.01
Community Commercial	25.23	0.03	0.03	0.00	0.03	0.03
Transit-Oriented Development - Low	5.32	0.01	0.01	0.00	0.01	0.01
Transit-Oriented Development - Moderate	3.81	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	2.44	0.00	0.00	0.00	0.00	0.00
Industrial	1.85	0.00	0.00	0.00	0.00	0.00
Downtown	13.59	0.01	0.01	0.00	0.01	0.01
Waterfront	12.52	0.01	0.01	0.00	0.01	0.01
Regional Serving Facility	7.05	0.01	0.01	0.00	0.01	0.01
2040 Total	126.78	0.13	0.13	0.00	0.13	0.13

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Regional Shopping Center						
Open Space	4.17	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	27.26	0.03	0.03	0.00	0.03	0.03
Multi-Family – Low	0.11	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.07	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	11.08	0.01	0.01	0.00	0.01	0.01
Neighborhood Serving Centers and Corridors – Moderate	12.29	0.01	0.01	0.00	0.01	0.01
Community Commercial	25.23	0.03	0.03	0.00	0.03	0.03
Transit-Oriented Development - Low	5.32	0.01	0.01	0.00	0.01	0.01
Transit-Oriented Development - Moderate	3.81	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	2.44	0.00	0.00	0.00	0.00	0.00
Industrial	1.85	0.00	0.00	0.00	0.00	0.00
Downtown	13.59	0.01	0.01	0.00	0.01	0.01
Waterfront	12.52	0.01	0.01	0.00	0.01	0.01
Regional Serving Facility	7.05	0.01	0.01	0.00	0.01	0.01
2040 Total	126.78	0.13	0.13	0.00	0.13	0.13

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Strip Mall						
Open Space	4.17	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	27.26	0.03	0.03	0.00	0.03	0.03
Multi-Family – Low	0.11	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.07	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	11.08	0.01	0.01	0.00	0.01	0.01
Neighborhood Serving Centers and Corridors – Moderate	12.29	0.01	0.01	0.00	0.01	0.01
Community Commercial	25.23	0.03	0.03	0.00	0.03	0.03
Transit-Oriented Development - Low	5.32	0.01	0.01	0.00	0.01	0.01
Transit-Oriented Development - Moderate	3.81	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	2.44	0.00	0.00	0.00	0.00	0.00
Industrial	1.85	0.00	0.00	0.00	0.00	0.00
Downtown	13.59	0.01	0.01	0.00	0.01	0.01
Waterfront	12.52	0.01	0.01	0.00	0.01	0.01
Regional Serving Facility	7.05	0.01	0.01	0.00	0.01	0.01
2040 Total	126.78	0.13	0.13	0.00	0.13	0.13

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
General Light Industrial						
Open Space	9.02	0.01	0.01	0.00	0.01	0.01
Founding and Contemporary Neighborhood	4.95	0.01	0.01	0.00	0.01	0.01
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.78	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	1.31	0.00	0.00	0.00	0.00	0.00
Community Commercial	8.36	0.01	0.01	0.00	0.01	0.01
Transit-Oriented Development - Low	0.05	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.04	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	11.12	0.01	0.01	0.00	0.01	0.01
Industrial	31.39	0.03	0.03	0.00	0.03	0.03
Downtown	0.48	0.00	0.00	0.00	0.00	0.00
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	126.09	0.13	0.13	0.00	0.13	0.13
2040 Total	193.59	0.20	0.20	0.00	0.20	0.20

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Manufacturing						
Open Space	9.02	0.01	0.01	0.00	0.01	0.01
Founding and Contemporary Neighborhood	4.95	0.01	0.01	0.00	0.01	0.01
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.78	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	1.31	0.00	0.00	0.00	0.00	0.00
Community Commercial	8.36	0.01	0.01	0.00	0.01	0.01
Transit-Oriented Development - Low	0.05	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.04	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	11.12	0.01	0.01	0.00	0.01	0.01
Industrial	31.39	0.03	0.03	0.00	0.03	0.03
Downtown	0.48	0.00	0.00	0.00	0.00	0.00
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	126.09	0.13	0.13	0.00	0.13	0.13
2040 Total	193.59	0.20	0.20	0.00	0.20	0.20

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Research & Development						
Open Space	9.02	0.01	0.01	0.00	0.01	0.01
Founding and Contemporary Neighborhood	4.95	0.01	0.01	0.00	0.01	0.01
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.78	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	1.31	0.00	0.00	0.00	0.00	0.00
Community Commercial	8.36	0.01	0.01	0.00	0.01	0.01
Transit-Oriented Development - Low	0.05	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.04	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	11.12	0.01	0.01	0.00	0.01	0.01
Industrial	31.39	0.03	0.03	0.00	0.03	0.03
Downtown	0.48	0.00	0.00	0.00	0.00	0.00
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	126.09	0.13	0.13	0.00	0.13	0.13
2040 Total	193.59	0.20	0.20	0.00	0.20	0.20

2040 Energy Source Category	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Single Family Residential						
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	50.26	428.47	182.51	2.68	34.61	34.61
Multi-Family – Low	0.50	4.24	1.80	0.03	0.34	0.34
Multi-Family – Moderate	0.33	2.85	1.21	0.02	0.23	0.23
Neighborhood Serving Centers and Corridors – Low	0.62	5.27	2.24	0.03	0.43	0.43
Neighborhood Serving Centers and Corridors – Moderate	0.40	3.37	1.44	0.02	0.27	0.27
Community Commercial	0.07	0.59	0.25	0.00	0.05	0.05
Transit-Oriented Development - Low	0.22	1.89	0.80	0.01	0.15	0.15
Transit-Oriented Development - Moderate	0.16	1.35	0.58	0.01	0.11	0.11
Neo-Industrial	0.07	0.61	0.26	0.00	0.05	0.05
Industrial	0.12	1.01	0.43	0.01	0.08	0.08
Downtown	0.28	2.39	1.02	0.01	0.19	0.19
Waterfront	0.00	0.04	0.02	0.00	0.00	0.00
Regional Serving Facility	0.00	0.04	0.02	0.00	0.00	0.00
2040 Total	53.04	452.11	192.58	2.83	36.52	36.52

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Apartments Low Rise						
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.93	61.07	26.00	0.93	0.93	0.93
Multi-Family – Low	0.16	10.81	4.60	0.16	0.16	0.16
Multi-Family – Moderate	0.29	19.26	8.20	0.29	0.29	0.29
Neighborhood Serving Centers and Corridors – Low	0.12	7.71	3.28	0.12	0.12	0.12
Neighborhood Serving Centers and Corridors – Moderate	0.24	15.60	6.64	0.24	0.24	0.24
Community Commercial	0.06	3.90	1.66	0.06	0.06	0.06
Transit-Oriented Development - Low	0.16	10.62	4.52	0.16	0.16	0.16
Transit-Oriented Development - Moderate	0.17	11.22	4.78	0.17	0.17	0.17
Neo-Industrial	0.03	1.92	0.82	0.03	0.03	0.03
Industrial	0.02	1.12	0.48	0.02	0.02	0.02
Downtown	0.34	22.57	9.61	0.34	0.34	0.34
Waterfront	0.06	4.04	1.72	0.06	0.06	0.06
Regional Serving Facility	0.07	4.94	2.10	0.07	0.07	0.07
2040 Total	2.65	174.78	74.41	2.65	2.65	2.65

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Apartments Mid Rise						
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	5.84	50.07	21.31	0.39	4.05	4.05
Multi-Family – Low	1.03	8.86	3.77	0.07	0.72	0.72
Multi-Family – Moderate	1.84	15.79	6.72	0.12	1.28	1.28
Neighborhood Serving Centers and Corridors – Low	0.74	6.32	2.69	0.05	0.51	0.51
Neighborhood Serving Centers and Corridors – Moderate	1.49	12.79	5.44	0.10	1.04	1.04
Community Commercial	0.37	3.20	1.36	0.02	0.26	0.26
Transit-Oriented Development - Low	1.02	8.71	3.71	0.07	0.70	0.70
Transit-Oriented Development - Moderate	1.07	9.20	3.92	0.07	0.74	0.74
Neo-Industrial	0.18	1.57	0.67	0.01	0.13	0.13
Industrial	0.11	0.92	0.39	0.01	0.07	0.07
Downtown	2.16	18.50	7.88	0.14	1.50	1.50
Waterfront	0.39	3.31	1.41	0.03	0.27	0.27
Regional Serving Facility	0.47	4.05	1.72	0.03	0.33	0.33
2040 Total	16.73	143.28	60.99	1.12	11.60	11.60

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Condos/Townhouse						
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.93	64.22	27.30	0.93	0.93	0.93
Multi-Family – Low	0.16	11.37	4.83	0.16	0.16	0.16
Multi-Family – Moderate	0.29	20.25	8.61	0.29	0.29	0.29
Neighborhood Serving Centers and Corridors – Low	0.12	8.10	3.44	0.12	0.12	0.12
Neighborhood Serving Centers and Corridors – Moderate	0.24	16.41	6.97	0.24	0.24	0.24
Community Commercial	0.06	4.10	1.74	0.06	0.06	0.06
Transit-Oriented Development - Low	0.16	11.17	4.75	0.16	0.16	0.16
Transit-Oriented Development - Moderate	0.17	11.80	5.02	0.17	0.17	0.17
Neo-Industrial	0.03	2.02	0.86	0.03	0.03	0.03
Industrial	0.02	1.18	0.50	0.02	0.02	0.02
Downtown	0.34	23.73	10.09	0.34	0.34	0.34
Waterfront	0.06	4.25	1.81	0.06	0.06	0.06
Regional Serving Facility	0.07	5.19	2.21	0.07	0.07	0.07
2040 Total	2.65	183.78	78.12	2.65	2.65	2.65

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
City Park						
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Community Commercial	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Low	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Downtown	0.00	0.00	0.00	0.00	0.00	0.00
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	0.00	0.00	0.00	0.00	0.00	0.00
2040 Total	0.00	0.00	0.00	0.00	0.00	0.00

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Golf Course						
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Community Commercial	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Low	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Downtown	0.00	0.00	0.00	0.00	0.00	0.00
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	0.00	0.00	0.00	0.00	0.00	0.00
2040 Total	0.00	0.00	0.00	0.00	0.00	0.00

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Library						
Open Space	0.44	3.96	3.33	0.02	0.30	0.30
Founding and Contemporary Neighborhood	1.18	10.75	9.03	0.05	0.82	0.82
Multi-Family – Low	0.01	0.12	0.10	0.00	0.01	0.01
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.02	0.22	0.18	0.00	0.02	0.02
Neighborhood Serving Centers and Corridors – Moderate	0.02	0.18	0.15	0.00	0.01	0.01
Community Commercial	0.02	0.17	0.15	0.00	0.01	0.01
Transit-Oriented Development - Low	0.05	0.42	0.35	0.00	0.03	0.03
Transit-Oriented Development - Moderate	0.05	0.41	0.35	0.00	0.03	0.03
Neo-Industrial	0.00	0.03	0.02	0.00	0.00	0.00
Industrial	0.03	0.24	0.20	0.00	0.02	0.02
Downtown	0.10	0.90	0.75	0.00	0.07	0.07
Waterfront	0.07	0.61	0.52	0.00	0.05	0.05
Regional Serving Facility	1.00	9.12	7.66	0.04	0.69	0.69
2040 Total	2.98	27.12	22.78	0.13	2.06	2.06

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Junior College						
Open Space	0.65	5.93	4.98	0.02	0.45	0.45
Founding and Contemporary Neighborhood	1.77	16.07	13.51	0.05	1.22	1.22
Multi-Family – Low	0.02	0.17	0.14	0.00	0.01	0.01
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.04	0.32	0.27	0.00	0.02	0.02
Neighborhood Serving Centers and Corridors – Moderate	0.03	0.27	0.23	0.00	0.02	0.02
Community Commercial	0.03	0.26	0.22	0.00	0.02	0.02
Transit-Oriented Development - Low	0.07	0.62	0.52	0.00	0.05	0.05
Transit-Oriented Development - Moderate	0.07	0.61	0.52	0.00	0.05	0.05
Neo-Industrial	0.00	0.04	0.03	0.00	0.00	0.00
Industrial	0.04	0.36	0.30	0.00	0.03	0.03
Downtown	0.15	1.34	1.13	0.00	0.10	0.10
Waterfront	0.10	0.92	0.77	0.00	0.07	0.07
Regional Serving Facility	1.50	13.65	11.47	0.04	1.04	1.04
2040 Total	4.47	40.57	34.09	0.13	3.09	3.09

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
General Office Building						
Open Space	0.01	0.06	0.05	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.11	1.01	0.85	0.01	0.01	0.01
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.03	0.24	0.20	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.04	0.38	0.32	0.00	0.00	0.00
Community Commercial	0.06	0.50	0.42	0.00	0.00	0.00
Transit-Oriented Development - Low	0.03	0.27	0.22	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.01	0.06	0.05	0.00	0.00	0.00
Neo-Industrial	0.00	0.02	0.02	0.00	0.00	0.00
Industrial	0.06	0.53	0.45	0.00	0.00	0.00
Downtown	0.83	7.54	6.33	0.06	0.06	0.06
Waterfront	0.13	1.16	0.97	0.01	0.01	0.01
Regional Serving Facility	12.96	0.01	0.01	0.00	0.01	0.01
2040 Total	14.26	11.79	9.91	0.10	0.11	0.11

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Medical Office Building						
Open Space	0.01	0.06	0.05	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.11	1.01	0.85	0.01	0.01	0.01
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.03	0.24	0.20	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.04	0.38	0.32	0.00	0.00	0.00
Community Commercial	0.06	0.50	0.42	0.00	0.00	0.00
Transit-Oriented Development - Low	0.03	0.27	0.22	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.01	0.06	0.05	0.00	0.00	0.00
Neo-Industrial	0.00	0.02	0.02	0.00	0.00	0.00
Industrial	0.06	0.53	0.45	0.00	0.00	0.00
Downtown	0.83	7.54	6.33	0.06	0.06	0.06
Waterfront	0.13	1.16	0.97	0.01	0.01	0.01
Regional Serving Facility	0.33	3.04	2.55	0.02	0.02	0.02
2040 Total	1.63	14.81	12.44	0.12	0.12	0.12

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Convenience Market						
Open Space	0.00	0.08	0.07	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.03	0.54	0.45	0.03	0.03	0.03
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.01	0.22	0.18	0.01	0.01	0.01
Neighborhood Serving Centers and Corridors – Moderate	0.01	0.24	0.20	0.01	0.01	0.01
Community Commercial	0.03	0.50	0.42	0.03	0.03	0.03
Transit-Oriented Development - Low	0.01	0.10	0.09	0.01	0.01	0.01
Transit-Oriented Development - Moderate	0.00	0.08	0.06	0.00	0.00	0.00
Neo-Industrial	0.00	0.05	0.04	0.00	0.00	0.00
Industrial	0.00	0.04	0.03	0.00	0.00	0.00
Downtown	0.01	0.27	0.22	0.01	0.01	0.01
Waterfront	0.01	0.25	0.21	0.01	0.01	0.01
Regional Serving Facility	0.01	0.14	0.12	0.01	0.01	0.01
2040 Total	0.13	2.50	2.10	0.13	0.13	0.13

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Pharmacy/Drug Store						
Open Space	0.00	0.08	0.07	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.03	0.54	0.45	0.03	0.03	0.03
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.01	0.22	0.18	0.01	0.01	0.01
Neighborhood Serving Centers and Corridors – Moderate	0.01	0.24	0.20	0.01	0.01	0.01
Community Commercial	0.03	0.50	0.42	0.03	0.03	0.03
Transit-Oriented Development - Low	0.01	0.10	0.09	0.01	0.01	0.01
Transit-Oriented Development - Moderate	0.00	0.08	0.06	0.00	0.00	0.00
Neo-Industrial	0.00	0.05	0.04	0.00	0.00	0.00
Industrial	0.00	0.04	0.03	0.00	0.00	0.00
Downtown	0.01	0.27	0.22	0.01	0.01	0.01
Waterfront	0.01	0.25	0.21	0.01	0.01	0.01
Regional Serving Facility	0.01	0.14	0.12	0.01	0.01	0.01
2040 Total	0.13	2.50	2.10	0.13	0.13	0.13

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Regional Shopping Center						
Open Space	0.00	0.08	0.07	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.03	0.54	0.45	0.03	0.03	0.03
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.01	0.22	0.18	0.01	0.01	0.01
Neighborhood Serving Centers and Corridors – Moderate	0.01	0.24	0.20	0.01	0.01	0.01
Community Commercial	0.03	0.50	0.42	0.03	0.03	0.03
Transit-Oriented Development - Low	0.01	0.10	0.09	0.01	0.01	0.01
Transit-Oriented Development - Moderate	0.00	0.08	0.06	0.00	0.00	0.00
Neo-Industrial	0.00	0.05	0.04	0.00	0.00	0.00
Industrial	0.00	0.04	0.03	0.00	0.00	0.00
Downtown	0.01	0.27	0.22	0.01	0.01	0.01
Waterfront	0.01	0.25	0.21	0.01	0.01	0.01
Regional Serving Facility	0.01	0.14	0.12	0.01	0.01	0.01
2040 Total	0.13	2.50	2.10	0.13	0.13	0.13

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Strip Mall						
Open Space	0.00	0.08	0.07	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.03	0.54	0.45	0.03	0.03	0.03
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.01	0.22	0.18	0.01	0.01	0.01
Neighborhood Serving Centers and Corridors – Moderate	0.01	0.24	0.20	0.01	0.01	0.01
Community Commercial	0.03	0.50	0.42	0.03	0.03	0.03
Transit-Oriented Development - Low	0.01	0.10	0.09	0.01	0.01	0.01
Transit-Oriented Development - Moderate	0.00	0.08	0.06	0.00	0.00	0.00
Neo-Industrial	0.00	0.05	0.04	0.00	0.00	0.00
Industrial	0.00	0.04	0.03	0.00	0.00	0.00
Downtown	0.01	0.27	0.22	0.01	0.01	0.01
Waterfront	0.01	0.25	0.21	0.01	0.01	0.01
Regional Serving Facility	0.01	0.14	0.12	0.01	0.01	0.01
2040 Total	0.13	2.50	2.10	0.13	0.13	0.13

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
General Light Industrial						
Open Space	0.22	1.96	1.65	0.01	0.15	0.15
Founding and Contemporary Neighborhood	0.12	1.08	0.90	0.01	0.08	0.08
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.02	0.17	0.14	0.00	0.01	0.01
Neighborhood Serving Centers and Corridors – Moderate	0.03	0.28	0.24	0.00	0.02	0.02
Community Commercial	0.20	1.82	1.53	0.01	0.14	0.14
Transit-Oriented Development - Low	0.00	0.01	0.01	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.00	0.01	0.01	0.00	0.00	0.00
Neo-Industrial	0.27	2.42	2.03	0.01	0.18	0.18
Industrial	0.75	6.83	5.74	0.03	0.52	0.52
Downtown	0.01	0.10	0.09	0.00	0.01	0.01
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	3.02	27.43	23.04	0.13	2.09	2.09
2040 Total	4.63	42.12	35.38	0.20	3.20	3.20

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Manufacturing						
Open Space	0.22	1.96	1.65	0.01	0.15	0.15
Founding and Contemporary Neighborhood	0.12	1.08	0.90	0.01	0.08	0.08
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.02	0.17	0.14	0.00	0.01	0.01
Neighborhood Serving Centers and Corridors – Moderate	0.03	0.28	0.24	0.00	0.02	0.02
Community Commercial	0.20	1.82	1.53	0.01	0.14	0.14
Transit-Oriented Development - Low	0.00	0.01	0.01	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.00	0.01	0.01	0.00	0.00	0.00
Neo-Industrial	0.27	2.42	2.03	0.01	0.18	0.18
Industrial	0.75	6.83	5.74	0.03	0.52	0.52
Downtown	0.01	0.10	0.09	0.00	0.01	0.01
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	3.02	27.43	23.04	0.13	2.09	2.09
2040 Total	4.63	42.12	35.38	0.20	3.20	3.20

	Pollutant Emissions, lbs/day					
	ROG	NOX	CO	SOX	PM10	PM2.5
Research & Development						
Open Space	0.22	1.96	1.65	0.01	0.15	0.15
Founding and Contemporary Neighborhood	0.12	1.08	0.90	0.01	0.08	0.08
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.02	0.17	0.14	0.00	0.01	0.01
Neighborhood Serving Centers and Corridors – Moderate	0.03	0.28	0.24	0.00	0.02	0.02
Community Commercial	0.20	1.82	1.53	0.01	0.14	0.14
Transit-Oriented Development - Low	0.00	0.01	0.01	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.00	0.01	0.01	0.00	0.00	0.00
Neo-Industrial	0.27	2.42	2.03	0.01	0.18	0.18
Industrial	0.75	6.83	5.74	0.03	0.52	0.52
Downtown	0.01	0.10	0.09	0.00	0.01	0.01
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	3.02	27.43	23.04	0.13	2.09	2.09
2040 Total	4.63	42.12	35.38	0.20	3.20	3.20

Table K: Buildout Year 2040 City of Long Beach Major Areas of Change Regional Criteria Air Pollutant Emissions Inventory

Sector	Criteria Air Pollutant Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Existing Year 2018						
Transportation (2018 emission factors)[1]	4,123	38,622	8,474	85	1,827	541
Energy, Residential (natural gas use)[2]	83	838	357	7	58	58
Energy, Commercial + Industrial (natural gas use)[2]	24	106	89	1	7	7
Energy, Public Facilities/Institutional (natural gas use)[2]	7	65	55	0	5	5
Area, Residential, Landscaping/Consumer Products[3]	8,837	2,990	46,580	82	5,478	5,478
Area, Commerical + Industrial Landscaping/Consumer Products[3]	952	1	1	0	1	1
Area, Public Facilities/Institutional Landscaping/Consumer Products[3]	295	0	1	0	0	0
Existing Forecast Land Uses Total	**14,321**	**42,621**	**55,556**	**174**	**7,377**	**6,091**
Future Year 2040 Existing General Plan (No Project)						
Transportation (2040 emission factors)[1]	1,516	16,473	3,340	32	1,651	127
Energy, Residential (natural gas use)[2]	72	888	378	8	51	51
Energy, Commercial + Industrial (natural gas use)[2]	30	163	137	1	10	10
Energy, Public Facilities/Institutional (natural gas use)[2]	7	68	57	0	5	5
Area, Residential, Landscaping/Consumer Products[3]	5,135	2,524	13,085	13	224	224
Area, Commerical + Industrial Landscaping/Consumer Products[3]	1,219	1	1	0	1	1
Area, Public Facilities/Institutional Landscaping/Consumer Products[3]	307	0	1	0	0	0
Future Year 2040 Existing General Plan (No Project) Total	**8,287**	**20,117**	**16,998**	**56**	**1,943**	**420**
LUE/UDE Year 2040						
Transportation (2040 emission factors)[1]	1,537	16,698	3,385	33	1,673	129
Energy, Residential (natural gas use)[2]	75	954	406	9	53	53
Energy, Commercial + Industrial (natural gas use)[2]	30	163	137	1	10	10
Energy, Public Facilities/Institutional (natural gas use)[2]	7	68	57	0	5	5
Area, Residential, Landscaping/Consumer Products[3]	5,493	2,759	14,203	15	242	242
Area, Commerical + Industrial Landscaping/Consumer Products[3]	1,219	1	1	0	1	1
Area, Public Facilities/Institutional Landscaping/Consumer Products[3]	307	0	1	0	0	0
Future with Project Total	**8,668**	**20,644**	**18,190**	**58**	**1,986**	**442**
Differences in Emissions for Proposed 2040 GP LUE/UDE vs Existing 2018 GP	**-5,653**	**-21,977**	**-37,366**	**-116**	**-5,391**	**-5,649**
SCAQMD Regional Significance Threshold	**55**	**55**	**550**	**150**	**150**	**55**
Significant?	**No**	**No**	**No**	**No**	**No**	**No**
Differences in Emissions for Proposed 2040 GP LUE/UDE vs Existing GP 2040 (No Project)	**381**	**527**	**1,193**	**2**	**43**	**22**
SCAQMD Regional Significance Threshold	**55**	**55**	**550**	**150**	**150**	**55**
Significant?	**Yes**	**Yes**	**Yes**	**No**	**No**	**No**

Source: Compiled by LSA Associates, Inc. (2019).

2018 GHG Emissions	Area Sources GHG Emissions, MT/Year Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Single Family Residential						
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	4,051.07	13,373.79	17,424.86	20.17	20.17	17,995.80
Multi-Family – Low	40.90	135.01	175.91	0.20	0.20	181.67
Multi-Family – Moderate	27.51	90.82	118.33	0.14	0.14	122.20
Neighborhood Serving Centers and Corridors – Low	50.87	167.93	218.80	0.25	0.25	225.97
Neighborhood Serving Centers and Corridors – Moderate	32.53	107.39	139.92	0.16	0.16	144.50
Community Commercial	5.69	18.78	24.47	0.03	0.03	25.27
Transit-Oriented Development - Low	18.21	60.10	78.31	0.09	0.09	80.87
Transit-Oriented Development - Moderate	13.05	43.09	56.14	0.07	0.07	57.98
Neo-Industrial	5.89	19.45	25.34	0.03	0.03	26.17
Industrial	9.71	32.04	41.75	0.05	0.05	43.11
Downtown	23.09	76.23	99.33	0.12	0.12	102.58
Waterfront	0.40	1.33	1.73	0.00	0.00	1.78
Regional Serving Facility	0.40	1.33	1.73	0.00	0.00	1.78
2018 Total	4,279.32	14,127.28	18,406.60	21.31	21.31	19,009.71

	Area Sources GHG Emissions, MT/Year Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Apartments Low Rise						
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	970.30	3,203.59	4,173.89	0.91	0.91	4,310.90
Multi-Family – Low	149.80	494.59	644.39	0.14	0.14	665.54
Multi-Family – Moderate	261.30	862.71	1,124.01	0.24	0.24	1,160.90
Neighborhood Serving Centers and Corridors – Low	99.41	328.20	427.61	0.09	0.09	441.65
Neighborhood Serving Centers and Corridors – Moderate	201.94	666.72	868.65	0.19	0.19	897.17
Community Commercial	63.29	208.96	272.25	0.06	0.06	281.18
Transit-Oriented Development - Low	55.08	181.85	236.93	0.05	0.05	244.71
Transit-Oriented Development - Moderate	39.26	129.63	168.89	0.04	0.04	174.44
Neo-Industrial	28.91	95.46	124.37	0.03	0.03	128.45
Industrial	18.14	59.88	78.02	0.02	0.02	80.58
Downtown	254.83	841.35	1,096.18	0.24	0.24	1,132.16
Waterfront	63.29	208.96	272.25	0.06	0.06	281.18
Regional Serving Facility	22.17	73.21	95.39	0.02	0.02	98.52
2018 Total	2,227.71	7,355.11	9,582.82	2.08	2.08	9,897.37

Area Sources

GHG Emissions, MT/Year

Apartments Mid Rise	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.00	3,203.60	3,203.60	0.38	0.38	3,227.21
Multi-Family – Low	0.00	494.59	494.59	0.06	0.06	498.24
Multi-Family – Moderate	0.00	862.71	862.71	0.10	0.10	869.07
Neighborhood Serving Centers and Corridors – Low	0.00	328.20	328.20	0.04	0.04	330.62
Neighborhood Serving Centers and Corridors – Moderate	0.00	666.72	666.72	0.08	0.08	671.63
Community Commercial	0.00	208.96	208.96	0.02	0.02	210.50
Transit-Oriented Development - Low	0.00	181.85	181.85	0.02	0.02	183.19
Transit-Oriented Development - Moderate	0.00	129.63	129.63	0.02	0.02	130.59
Neo-Industrial	0.00	95.46	95.46	0.01	0.01	96.16
Industrial	0.00	59.88	59.88	0.01	0.01	60.32
Downtown	0.00	841.35	841.35	0.10	0.10	847.56
Waterfront	0.00	208.96	208.96	0.02	0.02	210.50
Regional Serving Facility	0.00	73.21	73.21	0.01	0.01	73.75
2018 Total	0.00	7,355.13	7,355.13	0.88	0.88	7,409.35

Area Sources

GHG Emissions, MT/Year

Condos/Townhouse	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	408.55	1,348.88	1,757.43	0.38	0.38	1,815.12
Multi-Family – Low	63.07	208.25	271.32	0.06	0.06	280.23
Multi-Family – Moderate	110.02	363.25	473.27	0.10	0.10	488.80
Neighborhood Serving Centers and Corridors – Low	41.86	138.19	180.05	0.04	0.04	185.96
Neighborhood Serving Centers and Corridors – Moderate	85.03	280.72	365.75	0.08	0.08	377.75
Community Commercial	26.65	87.98	114.63	0.02	0.02	118.39
Transit-Oriented Development - Low	23.19	76.57	99.76	0.02	0.02	103.04
Transit-Oriented Development - Moderate	16.53	54.58	71.11	0.02	0.02	73.45
Neo-Industrial	12.17	40.19	52.37	0.01	0.01	54.08
Industrial	7.64	25.21	32.85	0.01	0.01	33.93
Downtown	107.30	354.25	461.55	0.10	0.10	476.70
Waterfront	26.65	87.98	114.63	0.02	0.02	118.39
Regional Serving Facility	9.34	30.83	40.16	0.01	0.01	41.48
2018 Total	937.98	3,096.89	4,034.87	0.88	0.88	4,167.32

Area Sources

GHG Emissions, MT/Year

City Park	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.02	0.02	0.00	0.00	0.02
Founding and Contemporary Neighborhood	0.00	0.05	0.05	0.00	0.00	0.05
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Community Commercial	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Low	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Downtown	0.00	0.00	0.00	0.00	0.00	0.00
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	0.00	0.04	0.04	0.00	0.00	0.04
2018 Total	0.00	0.12	0.12	0.00	0.00	0.12

Area Sources

GHG Emissions, MT/Year

Golf Course	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.02	0.02	0.00	0.00	0.02
Founding and Contemporary Neighborhood	0.00	0.05	0.05	0.00	0.00	0.05
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Community Commercial	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Low	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Downtown	0.00	0.00	0.00	0.00	0.00	0.00
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	0.00	0.04	0.04	0.00	0.00	0.04
2018 Total	0.00	0.12	0.12	0.00	0.00	0.12

Area Sources

GHG Emissions, MT/Year

Library	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.02	0.02	0.00	0.00	0.02
Founding and Contemporary Neighborhood	0.00	0.05	0.05	0.00	0.00	0.05
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Community Commercial	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Low	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Downtown	0.00	0.00	0.00	0.00	0.00	0.00
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	0.00	0.04	0.04	0.00	0.00	0.04
2018 Total	0.00	0.12	0.12	0.00	0.00	0.12

Area Sources

GHG Emissions, MT/Year

Junior College	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.02	0.02	0.00	0.00	0.02
Founding and Contemporary Neighborhood	0.00	0.05	0.05	0.00	0.00	0.05
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Community Commercial	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Low	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Downtown	0.00	0.00	0.00	0.00	0.00	0.00
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	0.00	0.04	0.04	0.00	0.00	0.04
2018 Total	0.00	0.12	0.12	0.00	0.00	0.12

Area Sources

GHG Emissions, MT/Year

General Office Building	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.00	0.01	0.01	0.00	0.00	0.01
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Community Commercial	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Low	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Downtown	0.00	0.04	0.04	0.00	0.00	0.04
Waterfront	0.00	0.01	0.01	0.00	0.00	0.01
Regional Serving Facility	0.00	0.01	0.01	0.00	0.00	0.01
2018 Total	0.00	0.09	0.09	0.00	0.00	0.09

Area Sources

GHG Emissions, MT/Year

Medical Office Building	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.00	0.01	0.01	0.00	0.00	0.01
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Community Commercial	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Low	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Downtown	0.00	0.04	0.04	0.00	0.00	0.04
Waterfront	0.00	0.01	0.01	0.00	0.00	0.01
Regional Serving Facility	0.00	0.01	0.01	0.00	0.00	0.01
2018 Total	0.00	0.09	0.09	0.00	0.00	0.09

Area Sources

GHG Emissions, MT/Year

Convenience Market	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.00	0.03	0.03	0.00	0.00	0.03
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	0.01	0.01	0.00	0.00	0.01
Neighborhood Serving Centers and Corridors – Moderate	0.00	0.01	0.01	0.00	0.00	0.01
Community Commercial	0.00	0.02	0.02	0.00	0.00	0.02
Transit-Oriented Development - Low	0.00	0.01	0.01	0.00	0.00	0.01
Transit-Oriented Development - Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Downtown	0.00	0.01	0.01	0.00	0.00	0.01
Waterfront	0.00	0.01	0.01	0.00	0.00	0.01
Regional Serving Facility	0.00	0.00	0.00	0.00	0.00	0.00
2018 Total	0.00	0.12	0.12	0.00	0.00	0.12

Area Sources

GHG Emissions, MT/Year

Pharmacy/Drug Store	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.00	0.03	0.03	0.00	0.00	0.03
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	0.01	0.01	0.00	0.00	0.01
Neighborhood Serving Centers and Corridors – Moderate	0.00	0.01	0.01	0.00	0.00	0.01
Community Commercial	0.00	0.02	0.02	0.00	0.00	0.02
Transit-Oriented Development - Low	0.00	0.01	0.01	0.00	0.00	0.01
Transit-Oriented Development - Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Downtown	0.00	0.01	0.01	0.00	0.00	0.01
Waterfront	0.00	0.01	0.01	0.00	0.00	0.01
Regional Serving Facility	0.00	0.00	0.00	0.00	0.00	0.00
2018 Total	0.00	0.12	0.12	0.00	0.00	0.12

Area Sources

GHG Emissions, MT/Year

Regional Shopping Center	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.00	0.03	0.03	0.00	0.00	0.03
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	0.01	0.01	0.00	0.00	0.01
Neighborhood Serving Centers and Corridors – Moderate	0.00	0.01	0.01	0.00	0.00	0.01
Community Commercial	0.00	0.02	0.02	0.00	0.00	0.02
Transit-Oriented Development - Low	0.00	0.01	0.01	0.00	0.00	0.01
Transit-Oriented Development - Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Downtown	0.00	0.01	0.01	0.00	0.00	0.01
Waterfront	0.00	0.01	0.01	0.00	0.00	0.01
Regional Serving Facility	0.00	0.00	0.00	0.00	0.00	0.00
2018 Total	0.00	0.12	0.12	0.00	0.00	0.12

Area Sources

GHG Emissions, MT/Year

Strip Mall	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.00	0.03	0.03	0.00	0.00	0.03
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	0.01	0.01	0.00	0.00	0.01
Neighborhood Serving Centers and Corridors – Moderate	0.00	0.01	0.01	0.00	0.00	0.01
Community Commercial	0.00	0.02	0.02	0.00	0.00	0.02
Transit-Oriented Development - Low	0.00	0.01	0.01	0.00	0.00	0.01
Transit-Oriented Development - Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Downtown	0.00	0.01	0.01	0.00	0.00	0.01
Waterfront	0.00	0.01	0.01	0.00	0.00	0.01
Regional Serving Facility	0.00	0.00	0.00	0.00	0.00	0.00
2018 Total	0.00	0.12	0.12	0.00	0.00	0.12

Area Sources

GHG Emissions, MT/Year

General Light Industrial	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.01	0.01	0.00	0.00	0.01
Founding and Contemporary Neighborhood	0.00	0.01	0.01	0.00	0.00	0.01
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Community Commercial	0.00	0.01	0.01	0.00	0.00	0.01
Transit-Oriented Development - Low	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.00	0.01	0.01	0.00	0.00	0.01
Industrial	0.00	0.03	0.03	0.00	0.00	0.03
Downtown	0.00	0.00	0.00	0.00	0.00	0.00
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	0.00	0.07	0.07	0.00	0.00	0.07
2018 Total	0.00	0.13	0.13	0.00	0.00	0.13

Area Sources

GHG Emissions, MT/Year

Manufacturing	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.01	0.01	0.00	0.00	0.01
Founding and Contemporary Neighborhood	0.00	0.01	0.01	0.00	0.00	0.01
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Community Commercial	0.00	0.01	0.01	0.00	0.00	0.01
Transit-Oriented Development - Low	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.00	0.01	0.01	0.00	0.00	0.01
Industrial	0.00	0.03	0.03	0.00	0.00	0.03
Downtown	0.00	0.00	0.00	0.00	0.00	0.00
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	0.00	0.07	0.07	0.00	0.00	0.07
2018 Total	0.00	0.13	0.13	0.00	0.00	0.13

Area Sources

GHG Emissions, MT/Year

Research & Development	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.01	0.01	0.00	0.00	0.01
Founding and Contemporary Neighborhood	0.00	0.01	0.01	0.00	0.00	0.01
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Community Commercial	0.00	0.01	0.01	0.00	0.00	0.01
Transit-Oriented Development - Low	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.00	0.01	0.01	0.00	0.00	0.01
Industrial	0.00	0.03	0.03	0.00	0.00	0.03
Downtown	0.00	0.00	0.00	0.00	0.00	0.00
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	0.00	0.07	0.07	0.00	0.00	0.07
2018 Total	0.00	0.13	0.13	0.00	0.00	0.13

2018 GHG Emissions	Energy Sources GHG Emissions, MT/Year Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Single Family Residential						
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.00	247,028.71	247,028.71	20.17	20.17	248,122.17
Multi-Family – Low	0.00	2,493.80	2,493.80	0.20	0.20	2,504.84
Multi-Family – Moderate	0.00	1,677.50	1,677.50	0.14	0.14	1,684.92
Neighborhood Serving Centers and Corridors – Low	0.00	3,101.94	3,101.94	0.25	0.25	3,115.67
Neighborhood Serving Centers and Corridors – Moderate	0.00	1,983.61	1,983.61	0.16	0.16	1,992.39
Community Commercial	0.00	346.93	346.93	0.03	0.03	348.46
Transit-Oriented Development - Low	0.00	1,110.17	1,110.17	0.09	0.09	1,115.08
Transit-Oriented Development - Moderate	0.00	795.89	795.89	0.07	0.07	799.42
Neo-Industrial	0.00	359.17	359.17	0.03	0.03	360.76
Industrial	0.00	591.82	591.82	0.05	0.05	594.44
Downtown	0.00	1,408.12	1,408.12	0.12	0.12	1,414.35
Waterfront	0.00	24.49	24.49	0.00	0.00	24.60
Regional Serving Facility	0.00	24.49	24.49	0.00	0.00	24.60
2018 Total	0.00	260,946.62	260,946.62	21.31	21.31	262,101.70

	Energy Sources GHG Emissions, MT/Year Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Apartments Low Rise						
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.00	32,230.25	32,230.25	0.91	0.91	32,375.41
Multi-Family – Low	0.00	4,975.88	4,975.88	0.14	0.14	4,998.30
Multi-Family – Moderate	0.00	8,679.46	8,679.46	0.24	0.24	8,718.55
Neighborhood Serving Centers and Corridors – Low	0.00	3,301.94	3,301.94	0.09	0.09	3,316.81
Neighborhood Serving Centers and Corridors – Moderate	0.00	6,707.63	6,707.63	0.19	0.19	6,737.84
Community Commercial	0.00	2,102.25	2,102.25	0.06	0.06	2,111.72
Transit-Oriented Development - Low	0.00	1,829.55	1,829.55	0.05	0.05	1,837.80
Transit-Oriented Development - Moderate	0.00	1,304.18	1,304.18	0.04	0.04	1,310.05
Neo-Industrial	0.00	960.35	960.35	0.03	0.03	964.67
Industrial	0.00	602.44	602.44	0.02	0.02	605.15
Downtown	0.00	8,464.56	8,464.56	0.24	0.24	8,502.69
Waterfront	0.00	2,102.25	2,102.25	0.06	0.06	2,111.72
Regional Serving Facility	0.00	736.56	736.56	0.02	0.02	739.88
2018 Total	0.00	73,997.30	73,997.30	2.08	2.08	74,330.58

Energy Sources
GHG Emissions, MT/Year

Apartments Mid Rise	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.00	29,064.89	29,064.89	0.38	0.38	29,193.35
Multi-Family – Low	0.00	4,487.20	4,487.20	0.06	0.06	4,507.03
Multi-Family – Moderate	0.00	7,827.04	7,827.04	0.10	0.10	7,861.63
Neighborhood Serving Centers and Corridors – Low	0.00	2,977.66	2,977.66	0.04	0.04	2,990.82
Neighborhood Serving Centers and Corridors – Moderate	0.00	6,048.86	6,048.86	0.08	0.08	6,075.60
Community Commercial	0.00	1,895.78	1,895.78	0.02	0.02	1,904.16
Transit-Oriented Development - Low	0.00	1,649.87	1,649.87	0.02	0.02	1,657.16
Transit-Oriented Development - Moderate	0.00	1,176.09	1,176.09	0.02	0.02	1,181.29
Neo-Industrial	0.00	866.03	866.03	0.01	0.01	869.86
Industrial	0.00	543.28	543.28	0.01	0.01	545.68
Downtown	0.00	7,633.25	7,633.25	0.10	0.10	7,666.99
Waterfront	0.00	1,895.78	1,895.78	0.02	0.02	1,904.16
Regional Serving Facility	0.00	664.23	664.23	0.01	0.01	667.16
2018 Total	0.00	66,729.96	66,729.96	0.88	0.88	67,024.89

Energy Sources
GHG Emissions, MT/Year

Condos/Townhouse	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.00	15,398.37	15,398.37	0.38	0.38	15,466.71
Multi-Family – Low	0.00	2,377.29	2,377.29	0.06	0.06	2,387.84
Multi-Family – Moderate	0.00	4,146.71	4,146.71	0.10	0.10	4,165.11
Neighborhood Serving Centers and Corridors – Low	0.00	1,577.54	1,577.54	0.04	0.04	1,584.54
Neighborhood Serving Centers and Corridors – Moderate	0.00	3,204.65	3,204.65	0.08	0.08	3,218.87
Community Commercial	0.00	1,004.37	1,004.37	0.02	0.02	1,008.83
Transit-Oriented Development - Low	0.00	874.09	874.09	0.02	0.02	877.97
Transit-Oriented Development - Moderate	0.00	623.09	623.09	0.02	0.02	625.85
Neo-Industrial	0.00	458.82	458.82	0.01	0.01	460.85
Industrial	0.00	287.82	287.82	0.01	0.01	289.10
Downtown	0.00	4,044.04	4,044.04	0.10	0.10	4,061.99
Waterfront	0.00	1,004.37	1,004.37	0.02	0.02	1,008.83
Regional Serving Facility	0.00	351.90	351.90	0.01	0.01	353.46
2018 Total	0.00	35,353.07	35,353.07	0.88	0.88	35,509.95

Energy Sources
GHG Emissions, MT/Year

City Park	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Community Commercial	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Low	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Downtown	0.00	0.00	0.00	0.00	0.00	0.00
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	0.00	0.00	0.00	0.00	0.00	0.00
2018 Total	0.00	0.00	0.00	0.00	0.00	0.00

Energy Sources
GHG Emissions, MT/Year

Golf Course	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Community Commercial	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Low	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Downtown	0.00	0.00	0.00	0.00	0.00	0.00
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	0.00	0.00	0.00	0.00	0.00	0.00
2018 Total	0.00	0.00	0.00	0.00	0.00	0.00

Energy Sources
GHG Emissions, MT/Year

Library	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	3,532.16	3,532.16	0.02	0.02	3,546.59
Founding and Contemporary Neighborhood	0.00	9,883.96	9,883.96	0.05	0.05	9,924.33
Multi-Family – Low	0.00	71.48	71.48	0.00	0.00	71.77
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	164.79	164.79	0.00	0.00	165.47
Neighborhood Serving Centers and Corridors – Moderate	0.00	97.93	97.93	0.00	0.00	98.33
Community Commercial	0.00	160.74	160.74	0.00	0.00	161.40
Transit-Oriented Development - Low	0.00	225.13	225.13	0.00	0.00	226.05
Transit-Oriented Development - Moderate	0.00	183.59	183.59	0.00	0.00	184.34
Neo-Industrial	0.00	21.50	21.50	0.00	0.00	21.59
Industrial	0.00	221.19	221.19	0.00	0.00	222.09
Downtown	0.00	676.29	676.29	0.00	0.00	679.05
Waterfront	0.00	564.74	564.74	0.00	0.00	567.04
Regional Serving Facility	0.00	8,368.61	8,368.61	0.04	0.04	8,402.80
2018 Total	0.00	24,172.11	24,172.11	0.12	0.12	24,270.86

Energy Sources
GHG Emissions, MT/Year

Junior College	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	3,638.14	3,638.14	0.02	0.02	3,653.84
Founding and Contemporary Neighborhood	0.00	10,180.52	10,180.52	0.05	0.05	10,224.44
Multi-Family – Low	0.00	73.62	73.62	0.00	0.00	73.94
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	169.74	169.74	0.00	0.00	170.47
Neighborhood Serving Centers and Corridors – Moderate	0.00	100.87	100.87	0.00	0.00	101.30
Community Commercial	0.00	165.57	165.57	0.00	0.00	166.28
Transit-Oriented Development - Low	0.00	231.88	231.88	0.00	0.00	232.88
Transit-Oriented Development - Moderate	0.00	189.10	189.10	0.00	0.00	189.92
Neo-Industrial	0.00	22.14	22.14	0.00	0.00	22.24
Industrial	0.00	227.83	227.83	0.00	0.00	228.81
Downtown	0.00	696.58	696.58	0.00	0.00	699.58
Waterfront	0.00	581.68	581.68	0.00	0.00	584.19
Regional Serving Facility	0.00	8,619.71	8,619.71	0.04	0.04	8,656.90
2018 Total	0.00	24,897.38	24,897.38	0.12	0.12	25,004.80

Energy Sources
GHG Emissions, MT/Year

General Office Building	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	87.55	87.55	0.00	0.00	87.89
Founding and Contemporary Neighborhood	0.00	1,666.28	1,666.28	0.01	0.01	1,672.71
Multi-Family – Low	0.00	4.93	4.93	0.00	0.00	4.95
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	388.70	388.70	0.00	0.00	390.20
Neighborhood Serving Centers and Corridors – Moderate	0.00	616.61	616.61	0.00	0.00	618.99
Community Commercial	0.00	801.10	801.10	0.00	0.00	804.19
Transit-Oriented Development - Low	0.00	467.33	467.33	0.00	0.00	469.13
Transit-Oriented Development - Moderate	0.00	122.05	122.05	0.00	0.00	122.53
Neo-Industrial	0.00	33.33	33.33	0.00	0.00	33.46
Industrial	0.00	865.41	865.41	0.00	0.00	868.75
Downtown	0.00	9,152.46	9,152.46	0.04	0.04	9,187.76
Waterfront	0.00	1,812.51	1,812.51	0.01	0.01	1,819.50
Regional Serving Facility	0.00	2,722.76	2,722.76	0.01	0.01	2,733.26
2018 Total	0.00	18,741.02	18,741.02	0.09	0.09	18,813.32

Energy Sources
GHG Emissions, MT/Year

Medical Office Building	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	87.55	87.55	0.00	0.00	87.89
Founding and Contemporary Neighborhood	0.00	1,666.28	1,666.28	0.01	0.01	1,672.71
Multi-Family – Low	0.00	4.93	4.93	0.00	0.00	4.95
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	388.70	388.70	0.00	0.00	390.20
Neighborhood Serving Centers and Corridors – Moderate	0.00	616.61	616.61	0.00	0.00	618.99
Community Commercial	0.00	801.10	801.10	0.00	0.00	804.19
Transit-Oriented Development - Low	0.00	467.33	467.33	0.00	0.00	469.13
Transit-Oriented Development - Moderate	0.00	122.05	122.05	0.00	0.00	122.53
Neo-Industrial	0.00	33.33	33.33	0.00	0.00	33.46
Industrial	0.00	865.41	865.41	0.00	0.00	868.75
Downtown	0.00	9,152.46	9,152.46	0.04	0.04	9,187.76
Waterfront	0.00	1,812.51	1,812.51	0.01	0.01	1,819.50
Regional Serving Facility	0.00	2,722.76	2,722.76	0.01	0.01	2,733.26
2018 Total	0.00	18,741.02	18,741.02	0.09	0.09	18,813.32

Energy Sources
GHG Emissions, MT/Year

Convenience Market	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	744.91	744.91	0.00	0.00	747.61
Founding and Contemporary Neighborhood	0.00	5,270.09	5,270.09	0.03	0.03	5,289.19
Multi-Family – Low	0.00	46.96	46.96	0.00	0.00	47.13
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	2,074.09	2,074.09	0.01	0.01	2,081.60
Neighborhood Serving Centers and Corridors – Moderate	0.00	2,327.77	2,327.77	0.01	0.01	2,336.20
Community Commercial	0.00	4,689.98	4,689.98	0.02	0.02	4,706.98
Transit-Oriented Development - Low	0.00	1,095.03	1,095.03	0.01	0.01	1,099.00
Transit-Oriented Development - Moderate	0.00	863.85	863.85	0.00	0.00	866.98
Neo-Industrial	0.00	421.23	421.23	0.00	0.00	422.75
Industrial	0.00	350.89	350.89	0.00	0.00	352.16
Downtown	0.00	2,144.20	2,144.20	0.01	0.01	2,151.97
Waterfront	0.00	2,289.80	2,289.80	0.01	0.01	2,298.10
Regional Serving Facility	0.00	740.08	740.08	0.00	0.00	742.76
2018 Total	0.00	23,058.87	23,058.87	0.12	0.12	23,142.45

Energy Sources
GHG Emissions, MT/Year

Pharmacy/Drug Store	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	744.91	744.91	0.00	0.00	747.61
Founding and Contemporary Neighborhood	0.00	5,270.09	5,270.09	0.03	0.03	5,289.19
Multi-Family – Low	0.00	46.96	46.96	0.00	0.00	47.13
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	2,074.09	2,074.09	0.01	0.01	2,081.60
Neighborhood Serving Centers and Corridors – Moderate	0.00	2,327.77	2,327.77	0.01	0.01	2,336.20
Community Commercial	0.00	4,689.98	4,689.98	0.02	0.02	4,706.98
Transit-Oriented Development - Low	0.00	1,095.03	1,095.03	0.01	0.01	1,099.00
Transit-Oriented Development - Moderate	0.00	863.85	863.85	0.00	0.00	866.98
Neo-Industrial	0.00	421.23	421.23	0.00	0.00	422.75
Industrial	0.00	350.89	350.89	0.00	0.00	352.16
Downtown	0.00	2,144.20	2,144.20	0.01	0.01	2,151.97
Waterfront	0.00	2,289.80	2,289.80	0.01	0.01	2,298.10
Regional Serving Facility	0.00	740.08	740.08	0.00	0.00	742.76
2018 Total	0.00	23,058.87	23,058.87	0.12	0.12	23,142.45

Energy Sources
GHG Emissions, MT/Year

Regional Shopping Center	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	744.91	744.91	0.00	0.00	747.61
Founding and Contemporary Neighborhood	0.00	5,270.09	5,270.09	0.03	0.03	5,289.19
Multi-Family – Low	0.00	46.96	46.96	0.00	0.00	47.13
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	2,074.09	2,074.09	0.01	0.01	2,081.60
Neighborhood Serving Centers and Corridors – Moderate	0.00	2,327.77	2,327.77	0.01	0.01	2,336.20
Community Commercial	0.00	4,689.98	4,689.98	0.02	0.02	4,706.98
Transit-Oriented Development - Low	0.00	1,095.03	1,095.03	0.01	0.01	1,099.00
Transit-Oriented Development - Moderate	0.00	863.85	863.85	0.00	0.00	866.98
Neo-Industrial	0.00	421.23	421.23	0.00	0.00	422.75
Industrial	0.00	350.89	350.89	0.00	0.00	352.16
Downtown	0.00	2,144.20	2,144.20	0.01	0.01	2,151.97
Waterfront	0.00	2,289.80	2,289.80	0.01	0.01	2,298.10
Regional Serving Facility	0.00	740.08	740.08	0.00	0.00	742.76
2018 Total	0.00	23,058.87	23,058.87	0.12	0.12	23,142.45

Energy Sources
GHG Emissions, MT/Year

Strip Mall	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	744.91	744.91	0.00	0.00	747.61
Founding and Contemporary Neighborhood	0.00	5,270.09	5,270.09	0.03	0.03	5,289.19
Multi-Family – Low	0.00	46.96	46.96	0.00	0.00	47.13
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	2,074.09	2,074.09	0.01	0.01	2,081.60
Neighborhood Serving Centers and Corridors – Moderate	0.00	2,327.77	2,327.77	0.01	0.01	2,336.20
Community Commercial	0.00	4,689.98	4,689.98	0.02	0.02	4,706.98
Transit-Oriented Development - Low	0.00	1,095.03	1,095.03	0.01	0.01	1,099.00
Transit-Oriented Development - Moderate	0.00	863.85	863.85	0.00	0.00	866.98
Neo-Industrial	0.00	421.23	421.23	0.00	0.00	422.75
Industrial	0.00	350.89	350.89	0.00	0.00	352.16
Downtown	0.00	2,144.20	2,144.20	0.01	0.01	2,151.97
Waterfront	0.00	2,289.80	2,289.80	0.01	0.01	2,298.10
Regional Serving Facility	0.00	740.08	740.08	0.00	0.00	742.76
2018 Total	0.00	23,058.87	23,058.87	0.12	0.12	23,142.45

Energy Sources
GHG Emissions, MT/Year

General Light Industrial	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	1,652.45	1,652.45	0.01	0.01	1,659.20
Founding and Contemporary Neighborhood	0.00	981.41	981.41	0.01	0.01	985.42
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	149.79	149.79	0.00	0.00	150.40
Neighborhood Serving Centers and Corridors – Moderate	0.00	254.55	254.55	0.00	0.00	255.59
Community Commercial	0.00	1,594.36	1,594.36	0.01	0.01	1,600.88
Transit-Oriented Development - Low	0.00	11.26	11.26	0.00	0.00	11.30
Transit-Oriented Development - Moderate	0.00	9.01	9.01	0.00	0.00	9.04
Neo-Industrial	0.00	1,968.98	1,968.98	0.01	0.01	1,977.02
Industrial	0.00	6,103.70	6,103.70	0.03	0.03	6,128.63
Downtown	0.00	74.14	74.14	0.00	0.00	74.45
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	0.00	13,571.98	13,571.98	0.07	0.07	13,627.43
2018 Total	0.00	26,371.63	26,371.63	0.13	0.13	26,479.35

Energy Sources
GHG Emissions, MT/Year

Manufacturing	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	1,652.45	1,652.45	0.01	0.01	1,659.20
Founding and Contemporary Neighborhood	0.00	981.41	981.41	0.01	0.01	985.42
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	149.79	149.79	0.00	0.00	150.40
Neighborhood Serving Centers and Corridors – Moderate	0.00	254.55	254.55	0.00	0.00	255.59
Community Commercial	0.00	1,594.36	1,594.36	0.01	0.01	1,600.88
Transit-Oriented Development - Low	0.00	11.26	11.26	0.00	0.00	11.30
Transit-Oriented Development - Moderate	0.00	9.01	9.01	0.00	0.00	9.04
Neo-Industrial	0.00	1,968.98	1,968.98	0.01	0.01	1,977.02
Industrial	0.00	6,103.70	6,103.70	0.03	0.03	6,128.63
Downtown	0.00	74.14	74.14	0.00	0.00	74.45
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	0.00	13,571.98	13,571.98	0.07	0.07	13,627.43
2018 Total	0.00	26,371.63	26,371.63	0.13	0.13	26,479.35

Energy Sources

GHG Emissions, MT/Year

Research & Development	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	1,652.45	1,652.45	0.01	0.01	1,659.20
Founding and Contemporary Neighborhood	0.00	981.41	981.41	0.01	0.01	985.42
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	149.79	149.79	0.00	0.00	150.40
Neighborhood Serving Centers and Corridors – Moderate	0.00	254.55	254.55	0.00	0.00	255.59
Community Commercial	0.00	1,594.36	1,594.36	0.01	0.01	1,600.88
Transit-Oriented Development - Low	0.00	11.26	11.26	0.00	0.00	11.30
Transit-Oriented Development - Moderate	0.00	9.01	9.01	0.00	0.00	9.04
Neo-Industrial	0.00	1,968.98	1,968.98	0.01	0.01	1,977.02
Industrial	0.00	6,103.70	6,103.70	0.03	0.03	6,128.63
Downtown	0.00	74.14	74.14	0.00	0.00	74.45
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	0.00	13,571.98	13,571.98	0.07	0.07	13,627.43
2018 Total	0.00	26,371.63	26,371.63	0.13	0.13	26,479.35

2018 GHG Emissions	Waste Sources GHG Emissions, MT/Year Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Single Family Residential						
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	15,110.83	0.00	15,110.83	893.74	0.00	37,438.13
Multi-Family – Low	152.55	0.00	152.55	9.02	0.00	377.94
Multi-Family – Moderate	102.61	0.00	102.61	6.07	0.00	254.23
Neighborhood Serving Centers and Corridors – Low	189.75	0.00	189.75	11.22	0.00	470.11
Neighborhood Serving Centers and Corridors – Moderate	121.34	0.00	121.34	7.18	0.00	300.62
Community Commercial	21.22	0.00	21.22	1.26	0.00	52.58
Transit-Oriented Development - Low	67.91	0.00	67.91	4.02	0.00	168.25
Transit-Oriented Development - Moderate	48.69	0.00	48.69	2.88	0.00	120.62
Neo-Industrial	21.97	0.00	21.97	1.30	0.00	54.43
Industrial	36.20	0.00	36.20	2.14	0.00	89.69
Downtown	86.14	0.00	86.14	5.09	0.00	213.41
Waterfront	1.50	0.00	1.50	0.09	0.00	3.71
Regional Serving Facility	1.50	0.00	1.50	0.09	0.00	3.71
2018 Total	15,962.19	0.00	15,962.19	944.09	0.00	39,547.44

	Waste Sources GHG Emissions, MT/Year Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Apartments Low Rise						
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	1,353.78	0.00	1,353.78	80.01	0.00	3,354.01
Multi-Family – Low	209.00	0.00	209.00	12.35	0.00	517.81
Multi-Family – Moderate	364.57	0.00	364.57	21.55	0.00	903.22
Neighborhood Serving Centers and Corridors – Low	138.69	0.00	138.69	8.20	0.00	343.61
Neighborhood Serving Centers and Corridors – Moderate	281.74	0.00	281.74	16.65	0.00	698.02
Community Commercial	88.30	0.00	88.30	5.22	0.00	218.77
Transit-Oriented Development - Low	76.85	0.00	76.85	4.54	0.00	190.39
Transit-Oriented Development - Moderate	54.78	0.00	54.78	3.24	0.00	135.72
Neo-Industrial	40.34	0.00	40.34	2.38	0.00	99.94
Industrial	25.30	0.00	25.30	1.50	0.00	62.69
Downtown	355.54	0.00	355.54	21.01	0.00	880.86
Waterfront	88.30	0.00	88.30	5.22	0.00	218.77
Regional Serving Facility	30.94	0.00	30.94	1.83	0.00	76.65
2018 Total	3,108.14	0.00	3,108.14	183.70	0.00	7,700.45

Waste Sources
GHG Emissions, MT/Year

Apartments Mid Rise	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	1,353.80	0.00	1,353.80	80.01	0.00	3,353.96
Multi-Family – Low	209.01	0.00	209.01	12.35	0.00	517.80
Multi-Family – Moderate	364.57	0.00	364.57	21.55	0.00	903.21
Neighborhood Serving Centers and Corridors – Low	138.69	0.00	138.69	8.20	0.00	343.61
Neighborhood Serving Centers and Corridors – Moderate	281.75	0.00	281.75	16.65	0.00	698.01
Community Commercial	88.30	0.00	88.30	5.22	0.00	218.77
Transit-Oriented Development - Low	76.85	0.00	76.85	4.54	0.00	190.39
Transit-Oriented Development - Moderate	54.78	0.00	54.78	3.24	0.00	135.72
Neo-Industrial	40.34	0.00	40.34	2.38	0.00	99.94
Industrial	25.30	0.00	25.30	1.50	0.00	62.69
Downtown	355.55	0.00	355.55	21.01	0.00	880.84
Waterfront	88.30	0.00	88.30	5.22	0.00	218.77
Regional Serving Facility	30.94	0.00	30.94	1.83	0.00	76.65
2018 Total	3,108.19	0.00	3,108.19	183.69	0.00	7,700.34

Waste Sources
GHG Emissions, MT/Year

Condos/Townhouse	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	570.01	0.00	570.01	33.69	0.00	1,412.21
Multi-Family – Low	88.00	0.00	88.00	5.20	0.00	218.03
Multi-Family – Moderate	153.50	0.00	153.50	9.07	0.00	380.30
Neighborhood Serving Centers and Corridors – Low	58.40	0.00	58.40	3.45	0.00	144.68
Neighborhood Serving Centers and Corridors – Moderate	118.63	0.00	118.63	7.01	0.00	293.90
Community Commercial	37.18	0.00	37.18	2.20	0.00	92.11
Transit-Oriented Development - Low	32.36	0.00	32.36	1.91	0.00	80.16
Transit-Oriented Development - Moderate	23.07	0.00	23.07	1.36	0.00	57.14
Neo-Industrial	16.98	0.00	16.98	1.00	0.00	42.08
Industrial	10.65	0.00	10.65	0.63	0.00	26.40
Downtown	149.70	0.00	149.70	8.85	0.00	370.89
Waterfront	37.18	0.00	37.18	2.20	0.00	92.11
Regional Serving Facility	13.03	0.00	13.03	0.77	0.00	32.27
2018 Total	1,308.69	0.00	1,308.69	77.35	0.00	3,242.30

Waste Sources
GHG Emissions, MT/Year

City Park	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.33	0.00	0.33	0.02	0.00	0.82
Founding and Contemporary Neighborhood	0.92	0.00	0.92	0.05	0.00	2.28
Multi-Family – Low	0.01	0.00	0.01	0.00	0.00	0.02
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.02	0.00	0.02	0.00	0.00	0.04
Neighborhood Serving Centers and Corridors – Moderate	0.01	0.00	0.01	0.00	0.00	0.02
Community Commercial	0.01	0.00	0.01	0.00	0.00	0.04
Transit-Oriented Development - Low	0.02	0.00	0.02	0.00	0.00	0.05
Transit-Oriented Development - Moderate	0.02	0.00	0.02	0.00	0.00	0.04
Neo-Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Industrial	0.02	0.00	0.02	0.00	0.00	0.05
Downtown	0.06	0.00	0.06	0.00	0.00	0.16
Waterfront	0.05	0.00	0.05	0.00	0.00	0.13
Regional Serving Facility	0.78	0.00	0.78	0.04	0.00	1.93
2018 Total	2.26	0.00	2.26	0.12	0.00	5.58

Waste Sources
GHG Emissions, MT/Year

Golf Course	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	3.40	0.00	3.40	0.20	0.00	8.42
Founding and Contemporary Neighborhood	9.51	0.00	9.51	0.56	0.00	23.57
Multi-Family – Low	0.07	0.00	0.07	0.00	0.00	0.17
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.16	0.00	0.16	0.01	0.00	0.39
Neighborhood Serving Centers and Corridors – Moderate	0.09	0.00	0.09	0.01	0.00	0.23
Community Commercial	0.15	0.00	0.15	0.01	0.00	0.38
Transit-Oriented Development - Low	0.22	0.00	0.22	0.01	0.00	0.54
Transit-Oriented Development - Moderate	0.18	0.00	0.18	0.01	0.00	0.44
Neo-Industrial	0.02	0.00	0.02	0.00	0.00	0.05
Industrial	0.21	0.00	0.21	0.01	0.00	0.53
Downtown	0.65	0.00	0.65	0.04	0.00	1.61
Waterfront	0.54	0.00	0.54	0.03	0.00	1.35
Regional Serving Facility	8.06	0.00	8.06	0.48	0.00	19.96
2018 Total	23.27	0.00	23.27	1.38	0.00	57.64

Waste Sources
GHG Emissions, MT/Year

Library	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	146.67	0.00	146.67	8.67	0.00	363.36
Founding and Contemporary Neighborhood	410.41	0.00	410.41	24.25	0.00	1,016.78
Multi-Family – Low	2.97	0.00	2.97	0.18	0.00	7.35
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	6.84	0.00	6.84	0.40	0.00	16.95
Neighborhood Serving Centers and Corridors – Moderate	4.07	0.00	4.07	0.24	0.00	10.07
Community Commercial	6.67	0.00	6.67	0.39	0.00	16.54
Transit-Oriented Development - Low	9.35	0.00	9.35	0.55	0.00	23.16
Transit-Oriented Development - Moderate	7.62	0.00	7.62	0.45	0.00	18.89
Neo-Industrial	0.89	0.00	0.89	0.05	0.00	2.21
Industrial	9.18	0.00	9.18	0.54	0.00	22.75
Downtown	28.08	0.00	28.08	1.66	0.00	69.57
Waterfront	23.45	0.00	23.45	1.39	0.00	58.10
Regional Serving Facility	347.49	0.00	347.49	20.54	0.00	860.89
2018 Total	1,003.70	0.00	1,003.70	59.32	0.00	2,486.62

Waste Sources
GHG Emissions, MT/Year

Junior College	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	207.02	0.00	207.02	12.24	0.00	512.89
Founding and Contemporary Neighborhood	579.30	0.00	579.30	34.24	0.00	1,435.19
Multi-Family – Low	4.19	0.00	4.19	0.25	0.00	10.38
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	9.66	0.00	9.66	0.57	0.00	23.93
Neighborhood Serving Centers and Corridors – Moderate	5.74	0.00	5.74	0.34	0.00	14.22
Community Commercial	9.42	0.00	9.42	0.56	0.00	23.34
Transit-Oriented Development - Low	13.19	0.00	13.19	0.78	0.00	32.69
Transit-Oriented Development - Moderate	10.76	0.00	10.76	0.64	0.00	26.66
Neo-Industrial	1.26	0.00	1.26	0.07	0.00	3.12
Industrial	12.96	0.00	12.96	0.77	0.00	32.12
Downtown	39.64	0.00	39.64	2.34	0.00	98.20
Waterfront	33.10	0.00	33.10	1.96	0.00	82.00
Regional Serving Facility	490.49	0.00	490.49	28.99	0.00	1,215.16
2018 Total	1,416.74	0.00	1,416.74	83.73	0.00	3,509.90

Waste Sources
GHG Emissions, MT/Year

General Office Building	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	3.52	0.00	3.52	0.21	0.00	8.72
Founding and Contemporary Neighborhood	67.01	0.00	67.01	3.96	0.00	166.01
Multi-Family – Low	0.20	0.00	0.20	0.01	0.00	0.49
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	15.63	0.00	15.63	0.92	0.00	38.72
Neighborhood Serving Centers and Corridors – Moderate	24.80	0.00	24.80	1.47	0.00	61.43
Community Commercial	32.22	0.00	32.22	1.90	0.00	79.81
Transit-Oriented Development - Low	18.79	0.00	18.79	1.11	0.00	46.56
Transit-Oriented Development - Moderate	4.91	0.00	4.91	0.29	0.00	12.16
Neo-Industrial	1.34	0.00	1.34	0.08	0.00	3.32
Industrial	34.80	0.00	34.80	2.06	0.00	86.22
Downtown	368.05	0.00	368.05	21.75	0.00	911.83
Waterfront	72.89	0.00	72.89	4.31	0.00	180.57
Regional Serving Facility	109.49	0.00	109.49	6.47	0.00	271.26
2018 Total	753.64	0.00	753.64	44.54	0.00	1,867.11

Waste Sources
GHG Emissions, MT/Year

Medical Office Building	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	40.89	0.00	40.89	2.42	0.00	101.29
Founding and Contemporary Neighborhood	778.16	0.00	778.16	45.99	0.00	1,927.86
Multi-Family – Low	2.30	0.00	2.30	0.14	0.00	5.70
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	181.52	0.00	181.52	10.73	0.00	449.72
Neighborhood Serving Centers and Corridors – Moderate	287.96	0.00	287.96	17.02	0.00	713.41
Community Commercial	374.12	0.00	374.12	22.11	0.00	926.86
Transit-Oriented Development - Low	218.24	0.00	218.24	12.90	0.00	540.69
Transit-Oriented Development - Moderate	57.00	0.00	57.00	3.37	0.00	141.22
Neo-Industrial	15.57	0.00	15.57	0.92	0.00	38.56
Industrial	404.15	0.00	404.15	23.88	0.00	1,001.27
Downtown	4,274.24	0.00	4,274.24	252.60	0.00	10,589.25
Waterfront	846.45	0.00	846.45	50.02	0.00	2,097.05
Regional Serving Facility	1,271.54	0.00	1,271.54	75.15	0.00	3,150.19
2018 Total	8,752.15	0.00	8,752.15	517.24	0.00	21,683.07

Waste Sources
GHG Emissions, MT/Year

Convenience Market	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	103.54	0.00	103.54	6.12	0.00	256.52
Founding and Contemporary Neighborhood	732.53	0.00	732.53	43.29	0.00	1,814.80
Multi-Family – Low	6.53	0.00	6.53	0.39	0.00	16.17
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	288.29	0.00	288.29	17.04	0.00	714.23
Neighborhood Serving Centers and Corridors – Moderate	323.55	0.00	323.55	19.12	0.00	801.59
Community Commercial	651.90	0.00	651.90	38.53	0.00	1,615.04
Transit-Oriented Development - Low	152.21	0.00	152.21	9.00	0.00	377.08
Transit-Oriented Development - Moderate	120.07	0.00	120.07	7.10	0.00	297.47
Neo-Industrial	58.55	0.00	58.55	3.46	0.00	145.05
Industrial	48.77	0.00	48.77	2.88	0.00	120.83
Downtown	298.04	0.00	298.04	17.61	0.00	738.37
Waterfront	318.28	0.00	318.28	18.81	0.00	788.51
Regional Serving Facility	102.87	0.00	102.87	6.08	0.00	254.85
2018 Total	3,205.12	0.00	3,205.12	189.42	0.00	7,940.53

Waste Sources
GHG Emissions, MT/Year

Pharmacy/Drug Store	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	103.60	0.00	103.60	6.12	0.00	256.65
Founding and Contemporary Neighborhood	732.92	0.00	732.92	43.31	0.00	1,815.77
Multi-Family – Low	6.53	0.00	6.53	0.39	0.00	16.18
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	288.45	0.00	288.45	17.05	0.00	714.61
Neighborhood Serving Centers and Corridors – Moderate	323.73	0.00	323.73	19.13	0.00	802.02
Community Commercial	652.24	0.00	652.24	38.55	0.00	1,615.90
Transit-Oriented Development - Low	152.29	0.00	152.29	9.00	0.00	377.29
Transit-Oriented Development - Moderate	120.14	0.00	120.14	7.10	0.00	297.63
Neo-Industrial	58.58	0.00	58.58	3.46	0.00	145.13
Industrial	48.80	0.00	48.80	2.88	0.00	120.90
Downtown	298.20	0.00	298.20	17.62	0.00	738.77
Waterfront	318.45	0.00	318.45	18.82	0.00	788.94
Regional Serving Facility	102.92	0.00	102.92	6.08	0.00	254.99
2018 Total	3,206.83	0.00	3,206.83	189.52	0.00	7,944.77

Waste Sources
GHG Emissions, MT/Year

Regional Shopping Center	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	36.18	0.00	36.18	2.14	0.00	89.63
Founding and Contemporary Neighborhood	255.94	0.00	255.94	15.13	0.00	634.09
Multi-Family – Low	2.28	0.00	2.28	0.13	0.00	5.65
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	100.73	0.00	100.73	5.95	0.00	249.55
Neighborhood Serving Centers and Corridors – Moderate	113.05	0.00	113.05	6.68	0.00	280.07
Community Commercial	227.77	0.00	227.77	13.46	0.00	564.29
Transit-Oriented Development - Low	53.18	0.00	53.18	3.14	0.00	131.75
Transit-Oriented Development - Moderate	41.95	0.00	41.95	2.48	0.00	103.94
Neo-Industrial	20.46	0.00	20.46	1.21	0.00	50.68
Industrial	17.04	0.00	17.04	1.01	0.00	42.22
Downtown	104.13	0.00	104.13	6.15	0.00	257.99
Waterfront	111.21	0.00	111.21	6.57	0.00	275.51
Regional Serving Facility	35.94	0.00	35.94	2.12	0.00	89.05
2018 Total	1,119.87	0.00	1,119.87	66.18	0.00	2,774.42

Waste Sources
GHG Emissions, MT/Year

Strip Mall	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	36.18	0.00	36.18	2.14	0.00	89.63
Founding and Contemporary Neighborhood	255.94	0.00	255.94	15.13	0.00	634.09
Multi-Family – Low	2.28	0.00	2.28	0.13	0.00	5.65
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	100.73	0.00	100.73	5.95	0.00	249.55
Neighborhood Serving Centers and Corridors – Moderate	113.05	0.00	113.05	6.68	0.00	280.07
Community Commercial	227.77	0.00	227.77	13.46	0.00	564.29
Transit-Oriented Development - Low	53.18	0.00	53.18	3.14	0.00	131.75
Transit-Oriented Development - Moderate	41.95	0.00	41.95	2.48	0.00	103.94
Neo-Industrial	20.46	0.00	20.46	1.21	0.00	50.68
Industrial	17.04	0.00	17.04	1.01	0.00	42.22
Downtown	104.13	0.00	104.13	6.15	0.00	257.99
Waterfront	111.21	0.00	111.21	6.57	0.00	275.51
Regional Serving Facility	35.94	0.00	35.94	2.12	0.00	89.05
2018 Total	1,119.87	0.00	1,119.87	66.18	0.00	2,774.42

Waste Sources
GHG Emissions, MT/Year

General Light Industrial	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	92.37	0.00	92.37	5.46	0.00	228.84
Founding and Contemporary Neighborhood	54.86	0.00	54.86	3.24	0.00	135.91
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	8.37	0.00	8.37	0.49	0.00	20.74
Neighborhood Serving Centers and Corridors – Moderate	14.23	0.00	14.23	0.84	0.00	35.25
Community Commercial	89.12	0.00	89.12	5.27	0.00	220.80
Transit-Oriented Development - Low	0.63	0.00	0.63	0.04	0.00	1.56
Transit-Oriented Development - Moderate	0.50	0.00	0.50	0.03	0.00	1.25
Neo-Industrial	110.06	0.00	110.06	6.50	0.00	272.68
Industrial	341.19	0.00	341.19	20.16	0.00	845.28
Downtown	4.14	0.00	4.14	0.24	0.00	10.27
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	758.65	0.00	758.65	44.83	0.00	1,879.54
2018 Total	1,474.13	0.00	1,474.13	87.12	0.00	3,652.11

Waste Sources
GHG Emissions, MT/Year

Manufacturing	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	92.37	0.00	92.37	5.46	0.00	228.84
Founding and Contemporary Neighborhood	54.86	0.00	54.86	3.24	0.00	135.91
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	8.37	0.00	8.37	0.49	0.00	20.74
Neighborhood Serving Centers and Corridors – Moderate	14.23	0.00	14.23	0.84	0.00	35.25
Community Commercial	89.12	0.00	89.12	5.27	0.00	220.80
Transit-Oriented Development - Low	0.63	0.00	0.63	0.04	0.00	1.56
Transit-Oriented Development - Moderate	0.50	0.00	0.50	0.03	0.00	1.25
Neo-Industrial	110.06	0.00	110.06	6.50	0.00	272.68
Industrial	341.19	0.00	341.19	20.16	0.00	845.28
Downtown	4.14	0.00	4.14	0.24	0.00	10.27
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	758.65	0.00	758.65	44.83	0.00	1,879.54
2018 Total	1,474.13	0.00	1,474.13	87.12	0.00	3,652.11

Waste Sources

GHG Emissions, MT/Year

	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Research & Development						
Open Space	5.66	0.00	5.66	0.33	0.00	14.02
Founding and Contemporary Neighborhood	3.36	0.00	3.36	0.20	0.00	8.33
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.51	0.00	0.51	0.03	0.00	1.27
Neighborhood Serving Centers and Corridors – Moderate	0.87	0.00	0.87	0.05	0.00	2.16
Community Commercial	5.46	0.00	5.46	0.32	0.00	13.53
Transit-Oriented Development - Low	0.04	0.00	0.04	0.00	0.00	0.10
Transit-Oriented Development - Moderate	0.03	0.00	0.03	0.00	0.00	0.08
Neo-Industrial	6.75	0.00	6.75	0.40	0.00	16.71
Industrial	20.91	0.00	20.91	1.24	0.00	51.80
Downtown	0.25	0.00	0.25	0.02	0.00	0.63
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	46.49	0.00	46.49	2.75	0.00	115.19
2018 Total	90.34	0.00	90.34	5.34	0.00	223.82

Water Sources

2018 GHG Emissions — GHG Emissions, MT/Year

Single Family Residential	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	1,250.83	25,159.83	26,410.66	20.17	20.17	30,619.09
Multi-Family – Low	12.63	253.99	266.62	0.20	0.20	309.10
Multi-Family – Moderate	8.49	170.85	179.35	0.14	0.14	207.92
Neighborhood Serving Centers and Corridors – Low	15.71	315.93	331.64	0.25	0.25	384.48
Neighborhood Serving Centers and Corridors – Moderate	10.04	202.03	212.07	0.16	0.16	245.87
Community Commercial	1.76	35.33	37.09	0.03	0.03	43.00
Transit-Oriented Development - Low	5.62	113.07	118.69	0.09	0.09	137.60
Transit-Oriented Development - Moderate	4.03	81.06	85.09	0.07	0.07	98.65
Neo-Industrial	1.82	36.58	38.40	0.03	0.03	44.52
Industrial	3.00	60.28	63.27	0.05	0.05	73.36
Downtown	7.13	143.42	150.55	0.12	0.12	174.54
Waterfront	0.12	2.49	2.62	0.00	0.00	3.04
Regional Serving Facility	0.12	2.49	2.62	0.00	0.00	3.04
2018 Total	1,321.30	26,577.36	27,898.67	21.31	21.31	32,344.21

Water Sources

GHG Emissions, MT/Year

Apartments Low Rise	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	299.66	6,027.14	6,326.80	30.99	0.91	7,334.43
Multi-Family – Low	46.26	930.50	976.77	4.78	0.14	1,132.33
Multi-Family – Moderate	80.70	1,623.08	1,703.78	8.35	0.24	1,975.13
Neighborhood Serving Centers and Corridors – Low	30.70	617.47	648.17	3.17	0.09	751.40
Neighborhood Serving Centers and Corridors – Moderate	62.36	1,254.34	1,316.71	6.45	0.19	1,526.41
Community Commercial	19.55	393.13	412.67	2.02	0.06	478.40
Transit-Oriented Development - Low	17.01	342.13	359.14	1.76	0.05	416.34
Transit-Oriented Development - Moderate	12.13	243.88	256.01	1.25	0.04	296.78
Neo-Industrial	8.93	179.59	188.52	0.92	0.03	218.54
Industrial	5.60	112.66	118.26	0.58	0.02	137.09
Downtown	78.70	1,582.89	1,661.59	8.14	0.24	1,926.23
Waterfront	19.55	393.13	412.67	2.02	0.06	478.40
Regional Serving Facility	6.85	137.74	144.59	0.71	0.02	167.62
2018 Total	687.99	13,837.68	14,525.68	71.15	2.08	16,839.10

Water Sources
GHG Emissions, MT/Year

Apartments Mid Rise	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	408.55	1,348.88	1,757.43	0.38	0.38	1,815.12
Multi-Family – Low	63.07	208.25	271.32	0.06	0.06	280.23
Multi-Family – Moderate	110.02	363.25	473.27	0.10	0.10	488.80
Neighborhood Serving Centers and Corridors – Low	41.86	138.19	180.05	0.04	0.04	185.96
Neighborhood Serving Centers and Corridors – Moderate	85.03	280.72	365.75	0.08	0.08	377.75
Community Commercial	26.65	87.98	114.63	0.02	0.02	118.39
Transit-Oriented Development - Low	23.19	76.57	99.76	0.02	0.02	103.04
Transit-Oriented Development - Moderate	16.53	54.58	71.11	0.02	0.02	73.45
Neo-Industrial	12.17	40.19	52.37	0.01	0.01	54.08
Industrial	7.64	25.21	32.85	0.01	0.01	33.93
Downtown	107.30	354.25	461.55	0.10	0.10	476.70
Waterfront	26.65	87.98	114.63	0.02	0.02	118.39
Regional Serving Facility	9.34	30.83	40.16	0.01	0.01	41.48
2018 Total	937.98	3,096.89	4,034.87	0.88	0.88	4,167.32

Water Sources
GHG Emissions, MT/Year

Condos/Townhouse	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	126.17	2,537.74	2,663.92	13.05	0.38	3,088.18
Multi-Family – Low	19.48	391.79	411.27	2.01	0.06	476.77
Multi-Family – Moderate	33.98	683.40	717.38	3.51	0.10	831.63
Neighborhood Serving Centers and Corridors – Low	12.93	259.99	272.91	1.34	0.04	316.38
Neighborhood Serving Centers and Corridors – Moderate	26.26	528.14	554.40	2.72	0.08	642.70
Community Commercial	8.23	165.53	173.76	0.85	0.02	201.43
Transit-Oriented Development - Low	7.16	144.06	151.22	0.74	0.02	175.30
Transit-Oriented Development - Moderate	5.11	102.69	107.79	0.53	0.02	124.96
Neo-Industrial	3.76	75.62	79.38	0.39	0.01	92.02
Industrial	2.36	47.43	49.79	0.24	0.01	57.72
Downtown	33.14	666.48	699.62	3.43	0.10	811.04
Waterfront	8.23	165.53	173.76	0.85	0.02	201.43
Regional Serving Facility	2.88	58.00	60.88	0.30	0.01	70.57
2018 Total	289.68	5,826.39	6,116.07	29.96	0.88	7,090.15

Water Sources
GHG Emissions, MT/Year

City Park	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	75.96	75.96	0.02	0.02	76.23
Founding and Contemporary Neighborhood	0.00	212.55	212.55	0.05	0.05	213.31
Multi-Family – Low	0.00	1.54	1.54	0.00	0.00	1.54
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	3.54	3.54	0.00	0.00	3.56
Neighborhood Serving Centers and Corridors – Moderate	0.00	2.11	2.11	0.00	0.00	2.11
Community Commercial	0.00	3.46	3.46	0.00	0.00	3.47
Transit-Oriented Development - Low	0.00	4.84	4.84	0.00	0.00	4.86
Transit-Oriented Development - Moderate	0.00	3.95	3.95	0.00	0.00	3.96
Neo-Industrial	0.00	0.46	0.46	0.00	0.00	0.46
Industrial	0.00	4.76	4.76	0.00	0.00	4.77
Downtown	0.00	14.54	14.54	0.00	0.00	14.60
Waterfront	0.00	12.14	12.14	0.00	0.00	12.19
Regional Serving Facility	0.00	179.96	179.96	0.04	0.04	180.61
2018 Total	0.00	519.81	519.81	0.12	0.12	521.67

Water Sources
GHG Emissions, MT/Year

Golf Course	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	75.96	75.96	0.02	0.02	76.23
Founding and Contemporary Neighborhood	0.00	212.55	212.55	0.05	0.05	213.31
Multi-Family – Low	0.00	1.54	1.54	0.00	0.00	1.54
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	3.54	3.54	0.00	0.00	3.56
Neighborhood Serving Centers and Corridors – Moderate	0.00	2.11	2.11	0.00	0.00	2.11
Community Commercial	0.00	3.46	3.46	0.00	0.00	3.47
Transit-Oriented Development - Low	0.00	4.84	4.84	0.00	0.00	4.86
Transit-Oriented Development - Moderate	0.00	3.95	3.95	0.00	0.00	3.96
Neo-Industrial	0.00	0.46	0.46	0.00	0.00	0.46
Industrial	0.00	4.76	4.76	0.00	0.00	4.77
Downtown	0.00	14.54	14.54	0.00	0.00	14.60
Waterfront	0.00	12.14	12.14	0.00	0.00	12.19
Regional Serving Facility	0.00	179.96	179.96	0.04	0.04	180.61
2018 Total	0.00	519.81	519.81	0.12	0.12	521.67

Water Sources
GHG Emissions, MT/Year

Library	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	7.79	237.73	245.52	0.81	0.02	271.99
Founding and Contemporary Neighborhood	21.79	665.24	687.04	2.27	0.05	761.11
Multi-Family – Low	0.16	4.81	4.97	0.02	0.00	5.50
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.36	11.09	11.45	0.04	0.00	12.69
Neighborhood Serving Centers and Corridors – Moderate	0.22	6.59	6.81	0.02	0.00	7.54
Community Commercial	0.35	10.82	11.17	0.04	0.00	12.38
Transit-Oriented Development - Low	0.50	15.15	15.65	0.05	0.00	17.34
Transit-Oriented Development - Moderate	0.40	12.36	12.76	0.04	0.00	14.14
Neo-Industrial	0.05	1.45	1.49	0.00	0.00	1.66
Industrial	0.49	14.89	15.37	0.05	0.00	17.03
Downtown	1.49	45.52	47.01	0.16	0.00	52.08
Waterfront	1.25	38.01	39.25	0.13	0.00	43.49
Regional Serving Facility	18.45	563.25	581.70	1.92	0.04	644.43
2018 Total	53.29	1,626.92	1,680.21	5.55	0.12	1,861.38

Water Sources
GHG Emissions, MT/Year

Junior College	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	12.21	372.68	384.88	1.27	0.02	426.38
Founding and Contemporary Neighborhood	34.16	1,042.85	1,077.01	3.55	0.05	1,193.14
Multi-Family – Low	0.25	7.54	7.79	0.03	0.00	8.63
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.57	17.39	17.96	0.06	0.00	19.89
Neighborhood Serving Centers and Corridors – Moderate	0.34	10.33	10.67	0.04	0.00	11.82
Community Commercial	0.56	16.96	17.52	0.06	0.00	19.40
Transit-Oriented Development - Low	0.78	23.75	24.53	0.08	0.00	27.18
Transit-Oriented Development - Moderate	0.63	19.37	20.01	0.07	0.00	22.16
Neo-Industrial	0.07	2.27	2.34	0.01	0.00	2.60
Industrial	0.76	23.34	24.10	0.08	0.00	26.70
Downtown	2.34	71.35	73.69	0.24	0.00	81.64
Waterfront	1.95	59.58	61.54	0.20	0.00	68.17
Regional Serving Facility	28.92	882.97	911.89	3.01	0.04	1,010.22
2018 Total	83.53	2,550.38	2,633.93	8.69	0.12	2,917.93

Water Sources
GHG Emissions, MT/Year

General Office Building	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	1.05	20.94	22.00	0.11	0.00	25.53
Founding and Contemporary Neighborhood	20.01	398.60	418.62	2.07	0.01	485.90
Multi-Family – Low	0.06	1.18	1.24	0.01	0.00	1.44
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	4.67	92.98	97.65	0.48	0.00	113.35
Neighborhood Serving Centers and Corridors – Moderate	7.41	147.50	154.91	0.77	0.00	179.81
Community Commercial	9.62	191.64	201.26	1.00	0.00	233.61
Transit-Oriented Development - Low	5.61	111.79	117.41	0.58	0.00	136.28
Transit-Oriented Development - Moderate	1.47	29.20	30.66	0.15	0.00	35.59
Neo-Industrial	0.40	7.97	8.37	0.04	0.00	9.72
Industrial	10.39	207.02	217.42	1.08	0.00	252.36
Downtown	109.93	2,189.44	2,299.37	11.38	0.04	2,668.93
Waterfront	21.77	433.59	455.36	2.25	0.01	528.54
Regional Serving Facility	32.70	651.33	684.04	3.39	0.01	793.98
2018 Total	225.11	4,483.20	4,708.30	23.31	0.09	5,465.04

Water Sources
GHG Emissions, MT/Year

Medical Office Building	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.74	11.29	12.03	0.08	0.00	14.51
Founding and Contemporary Neighborhood	14.13	214.81	228.95	1.46	0.01	276.21
Multi-Family – Low	0.04	0.64	0.68	0.00	0.00	0.82
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	3.30	50.11	53.41	0.34	0.00	64.43
Neighborhood Serving Centers and Corridors – Moderate	5.23	79.49	84.72	0.54	0.00	102.21
Community Commercial	6.79	103.28	110.07	0.70	0.00	132.79
Transit-Oriented Development - Low	3.96	60.25	64.21	0.41	0.00	77.47
Transit-Oriented Development - Moderate	1.04	15.74	16.77	0.11	0.00	20.23
Neo-Industrial	0.28	4.30	4.58	0.03	0.00	5.52
Industrial	7.34	111.57	118.91	0.76	0.00	143.45
Downtown	77.61	1,179.92	1,257.54	8.02	0.04	1,517.14
Waterfront	15.37	233.67	249.04	1.59	0.01	300.45
Regional Serving Facility	23.09	351.01	374.10	2.39	0.01	451.33
2018 Total	158.93	2,416.07	2,575.00	16.42	0.09	3,106.57

Water Sources
GHG Emissions, MT/Year

Convenience Market	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	3.99	79.43	83.42	0.41	0.00	96.83
Founding and Contemporary Neighborhood	28.22	561.99	590.20	2.92	0.03	685.06
Multi-Family – Low	0.25	5.01	5.26	0.03	0.00	6.10
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	11.11	221.17	232.28	1.15	0.01	269.61
Neighborhood Serving Centers and Corridors – Moderate	12.46	248.23	260.69	1.29	0.01	302.59
Community Commercial	25.11	500.12	525.24	2.60	0.02	609.65
Transit-Oriented Development - Low	5.86	116.77	122.63	0.61	0.01	142.34
Transit-Oriented Development - Moderate	4.63	92.12	96.74	0.48	0.00	112.29
Neo-Industrial	2.26	44.92	47.17	0.23	0.00	54.76
Industrial	1.88	37.42	39.30	0.19	0.00	45.61
Downtown	11.48	228.65	240.13	1.19	0.01	278.73
Waterfront	12.26	244.18	256.44	1.27	0.01	297.65
Regional Serving Facility	3.96	78.92	82.88	0.41	0.00	96.20
2018 Total	123.47	2,458.92	2,582.38	12.78	0.12	2,997.44

Water Sources
GHG Emissions, MT/Year

Pharmacy/Drug Store	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	3.79	75.55	79.34	0.39	0.00	92.09
Founding and Contemporary Neighborhood	26.84	534.48	561.32	2.78	0.03	651.54
Multi-Family – Low	0.24	4.76	5.00	0.02	0.00	5.81
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	10.56	210.35	220.91	1.09	0.01	256.42
Neighborhood Serving Centers and Corridors – Moderate	11.85	236.08	247.93	1.23	0.01	287.78
Community Commercial	23.88	475.65	499.53	2.47	0.02	579.82
Transit-Oriented Development - Low	5.58	111.06	116.63	0.58	0.01	135.38
Transit-Oriented Development - Moderate	4.40	87.61	92.01	0.46	0.00	106.80
Neo-Industrial	2.15	42.72	44.86	0.22	0.00	52.08
Industrial	1.79	35.59	37.37	0.19	0.00	43.38
Downtown	10.92	217.46	228.38	1.13	0.01	265.09
Waterfront	11.66	232.23	243.89	1.21	0.01	283.09
Regional Serving Facility	3.77	75.06	78.83	0.39	0.00	91.50
2018 Total	117.43	2,338.59	2,456.01	12.16	0.12	2,850.75

Water Sources
GHG Emissions, MT/Year

Regional Shopping Center	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	3.99	79.43	83.42	0.41	0.00	96.83
Founding and Contemporary Neighborhood	28.22	561.99	590.20	2.92	0.03	685.06
Multi-Family – Low	0.25	5.01	5.26	0.03	0.00	6.10
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	11.11	221.17	232.28	1.15	0.01	269.61
Neighborhood Serving Centers and Corridors – Moderate	12.46	248.23	260.69	1.29	0.01	302.59
Community Commercial	25.11	500.12	525.24	2.60	0.02	609.65
Transit-Oriented Development - Low	5.86	116.77	122.63	0.61	0.01	142.34
Transit-Oriented Development - Moderate	4.63	92.12	96.74	0.48	0.00	112.29
Neo-Industrial	2.26	44.92	47.17	0.23	0.00	54.76
Industrial	1.88	37.42	39.30	0.19	0.00	45.61
Downtown	11.48	228.65	240.13	1.19	0.01	278.73
Waterfront	12.26	244.18	256.44	1.27	0.01	297.65
Regional Serving Facility	3.96	78.92	82.88	0.41	0.00	96.20
2018 Total	123.47	2,458.92	2,582.38	12.78	0.12	2,997.44

Water Sources
GHG Emissions, MT/Year

Strip Mall	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	3.99	79.43	83.42	0.41	0.00	96.83
Founding and Contemporary Neighborhood	28.22	561.99	590.20	2.92	0.03	685.06
Multi-Family – Low	0.25	5.01	5.26	0.03	0.00	6.10
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	11.11	221.17	232.28	1.15	0.01	269.61
Neighborhood Serving Centers and Corridors – Moderate	12.46	248.23	260.69	1.29	0.01	302.59
Community Commercial	25.11	500.12	525.24	2.60	0.02	609.65
Transit-Oriented Development - Low	5.86	116.77	122.63	0.61	0.01	142.34
Transit-Oriented Development - Moderate	4.63	92.12	96.74	0.48	0.00	112.29
Neo-Industrial	2.26	44.92	47.17	0.23	0.00	54.76
Industrial	1.88	37.42	39.30	0.19	0.00	45.61
Downtown	11.48	228.65	240.13	1.19	0.01	278.73
Waterfront	12.26	244.18	256.44	1.27	0.01	297.65
Regional Serving Facility	3.96	78.92	82.88	0.41	0.00	96.20
2018 Total	123.47	2,458.92	2,582.38	12.78	0.12	2,997.44

Water Sources
GHG Emissions, MT/Year

General Light Industrial	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	26.93	352.10	379.03	2.78	0.01	468.88
Founding and Contemporary Neighborhood	15.99	209.12	225.11	1.65	0.01	278.47
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	2.44	31.92	34.36	0.25	0.00	42.50
Neighborhood Serving Centers and Corridors – Moderate	4.15	54.24	58.39	0.43	0.00	72.23
Community Commercial	25.98	339.72	365.70	2.68	0.01	452.40
Transit-Oriented Development - Low	0.18	2.40	2.58	0.02	0.00	3.19
Transit-Oriented Development - Moderate	0.15	1.92	2.07	0.02	0.00	2.56
Neo-Industrial	32.08	419.55	451.63	3.31	0.01	558.70
Industrial	99.45	1,300.57	1,400.02	10.27	0.03	1,731.92
Downtown	1.21	15.80	17.01	0.12	0.00	21.04
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	221.14	2,891.90	3,113.04	22.84	0.07	3,851.04
2018 Total	429.70	5,619.22	6,048.93	44.37	0.13	7,482.92

Water Sources
GHG Emissions, MT/Year

Manufacturing	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	26.93	352.10	379.03	2.78	0.01	468.88
Founding and Contemporary Neighborhood	15.99	209.12	225.11	1.65	0.01	278.47
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	2.44	31.92	34.36	0.25	0.00	42.50
Neighborhood Serving Centers and Corridors – Moderate	4.15	54.24	58.39	0.43	0.00	72.23
Community Commercial	25.98	339.72	365.70	2.68	0.01	452.40
Transit-Oriented Development - Low	0.18	2.40	2.58	0.02	0.00	3.19
Transit-Oriented Development - Moderate	0.15	1.92	2.07	0.02	0.00	2.56
Neo-Industrial	32.08	419.55	451.63	3.31	0.01	558.70
Industrial	99.45	1,300.57	1,400.02	10.27	0.03	1,731.92
Downtown	1.21	15.80	17.01	0.12	0.00	21.04
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	221.14	2,891.90	3,113.04	22.84	0.07	3,851.04
2018 Total	429.70	5,619.22	6,048.93	44.37	0.13	7,482.92

Water Sources

GHG Emissions, MT/Year

Research & Development	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	57.25	748.65	805.90	5.91	0.14	996.95
Founding and Contemporary Neighborhood	34.00	444.64	478.64	3.51	0.09	592.11
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	5.19	67.86	73.05	0.54	0.01	90.37
Neighborhood Serving Centers and Corridors – Moderate	8.82	115.32	124.14	0.91	0.02	153.57
Community Commercial	55.24	722.34	777.57	5.70	0.14	961.91
Transit-Oriented Development - Low	0.39	5.10	5.49	0.04	0.00	6.79
Transit-Oriented Development - Moderate	0.31	4.08	4.39	0.03	0.00	5.43
Neo-Industrial	68.22	892.06	960.27	7.04	0.17	1,187.92
Industrial	211.46	2,765.32	2,976.78	21.83	0.54	3,682.48
Downtown	2.57	33.59	36.16	0.27	0.01	44.73
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	470.20	6,148.88	6,619.08	48.55	1.19	8,188.25
2018 Total	913.64	11,947.84	12,861.48	94.34	2.31	15,910.52

Area Sources

2040 GHG Emissions

GHG Emissions, MT/Year

	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Single Family Residential						
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.00	13,655.30	13,655.30	1.24	0.21	13,754.17
Multi-Family – Low	0.00	135.01	135.01	0.01	0.00	135.99
Multi-Family – Moderate	0.00	90.82	90.82	0.01	0.00	91.47
Neighborhood Serving Centers and Corridors – Low	0.00	167.93	167.93	0.02	0.00	169.15
Neighborhood Serving Centers and Corridors – Moderate	0.00	107.39	107.39	0.01	0.00	108.17
Community Commercial	0.00	18.78	18.78	0.00	0.00	18.92
Transit-Oriented Development - Low	0.00	60.10	60.10	0.01	0.00	60.54
Transit-Oriented Development - Moderate	0.00	43.09	43.09	0.00	0.00	43.40
Neo-Industrial	0.00	19.45	19.45	0.00	0.00	19.59
Industrial	0.00	32.04	32.04	0.00	0.00	32.27
Downtown	0.00	76.23	76.23	0.01	0.00	76.79
Waterfront	0.00	1.33	1.33	0.00	0.00	1.34
Regional Serving Facility	0.00	1.33	1.33	0.00	0.00	1.34
2040 Total	0.00	14,408.79	14,408.79	1.30	0.22	14,513.13

Area Sources

GHG Emissions, MT/Year

	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Apartments Low Rise						
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.00	3,271.50	3,271.50	0.30	0.06	3,295.37
Multi-Family – Low	0.00	579.14	579.14	0.05	0.01	583.37
Multi-Family – Moderate	0.00	1,031.75	1,031.75	0.09	0.02	1,039.28
Neighborhood Serving Centers and Corridors – Low	0.00	412.76	412.76	0.04	0.01	415.77
Neighborhood Serving Centers and Corridors – Moderate	0.00	835.75	835.75	0.08	0.01	841.85
Community Commercial	0.00	208.96	208.96	0.02	0.00	210.48
Transit-Oriented Development - Low	0.00	568.83	568.83	0.05	0.01	572.98
Transit-Oriented Development - Moderate	0.00	601.02	601.02	0.05	0.01	605.40
Neo-Industrial	0.00	102.82	102.82	0.01	0.00	103.57
Industrial	0.00	59.88	59.88	0.01	0.00	60.32
Downtown	0.00	1,209.03	1,209.03	0.11	0.02	1,217.86
Waterfront	0.00	216.32	216.32	0.02	0.00	217.90
Regional Serving Facility	0.00	264.42	264.42	0.02	0.00	266.35
2040 Total	0.00	9,362.18	9,362.18	0.85	0.16	9,430.50

Area Sources

GHG Emissions, MT/Year

Apartments Mid Rise	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.00	3,271.51	3,271.51	0.30	0.05	3,295.39
Multi-Family – Low	0.00	579.14	579.14	0.05	0.01	583.37
Multi-Family – Moderate	0.00	1,031.75	1,031.75	0.09	0.02	1,039.28
Neighborhood Serving Centers and Corridors – Low	0.00	412.76	412.76	0.04	0.01	415.77
Neighborhood Serving Centers and Corridors – Moderate	0.00	835.76	835.76	0.08	0.01	841.86
Community Commercial	0.00	208.96	208.96	0.02	0.00	210.48
Transit-Oriented Development - Low	0.00	568.83	568.83	0.05	0.01	572.99
Transit-Oriented Development - Moderate	0.00	601.02	601.02	0.05	0.01	605.41
Neo-Industrial	0.00	102.82	102.82	0.01	0.00	103.57
Industrial	0.00	59.88	59.88	0.01	0.00	60.32
Downtown	0.00	1,209.04	1,209.04	0.11	0.02	1,217.86
Waterfront	0.00	216.32	216.32	0.02	0.00	217.90
Regional Serving Facility	0.00	264.42	264.42	0.02	0.00	266.35
2040 Total	0.00	9,362.21	9,362.21	0.85	0.16	9,430.56

Area Sources

GHG Emissions, MT/Year

Condos/Townhouse	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.00	1,377.47	1,377.47	0.12	0.02	1,387.52
Multi-Family – Low	0.00	243.85	243.85	0.02	0.00	245.63
Multi-Family – Moderate	0.00	434.42	434.42	0.04	0.01	437.59
Neighborhood Serving Centers and Corridors – Low	0.00	173.79	173.79	0.02	0.00	175.06
Neighborhood Serving Centers and Corridors – Moderate	0.00	351.90	351.90	0.03	0.01	354.46
Community Commercial	0.00	87.98	87.98	0.01	0.00	88.62
Transit-Oriented Development - Low	0.00	239.51	239.51	0.02	0.00	241.26
Transit-Oriented Development - Moderate	0.00	253.06	253.06	0.02	0.00	254.91
Neo-Industrial	0.00	43.29	43.29	0.00	0.00	43.61
Industrial	0.00	25.21	25.21	0.00	0.00	25.40
Downtown	0.00	509.07	509.07	0.05	0.01	512.78
Waterfront	0.00	91.08	91.08	0.01	0.00	91.75
Regional Serving Facility	0.00	111.33	111.33	0.01	0.00	112.15
2040 Total	0.00	3,941.97	3,941.97	0.36	0.07	3,970.74

Area Sources

GHG Emissions, MT/Year

City Park	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.02	0.02	0.00	0.00	0.02
Founding and Contemporary Neighborhood	0.00	0.05	0.05	0.00	0.00	0.05
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Community Commercial	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Low	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Downtown	0.00	0.00	0.00	0.00	0.00	0.00
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	0.00	0.04	0.04	0.00	0.00	0.04
2040 Total	0.00	0.13	0.13	0.00	0.00	0.13

Area Sources

GHG Emissions, MT/Year

Golf Course	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.02	0.02	0.00	0.00	0.02
Founding and Contemporary Neighborhood	0.00	0.05	0.05	0.00	0.00	0.05
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Community Commercial	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Low	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Downtown	0.00	0.00	0.00	0.00	0.00	0.00
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	0.00	0.04	0.04	0.00	0.00	0.04
2040 Total	0.00	0.13	0.13	0.00	0.00	0.13

Area Sources

GHG Emissions, MT/Year

Library	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.02	0.02	0.00	0.00	0.02
Founding and Contemporary Neighborhood	0.00	0.05	0.05	0.00	0.00	0.05
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Community Commercial	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Low	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Downtown	0.00	0.00	0.00	0.00	0.00	0.00
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	0.00	0.04	0.04	0.00	0.00	0.04
2040 Total	0.00	0.13	0.13	0.00	0.00	0.13

Area Sources

GHG Emissions, MT/Year

Junior College	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.02	0.02	0.00	0.00	0.02
Founding and Contemporary Neighborhood	0.00	0.05	0.05	0.00	0.00	0.05
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Community Commercial	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Low	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Downtown	0.00	0.00	0.00	0.00	0.00	0.00
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	0.00	0.04	0.04	0.00	0.00	0.04
2040 Total	0.00	0.13	0.13	0.00	0.00	0.13

Area Sources

GHG Emissions, MT/Year

General Office Building	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.00	0.01	0.01	0.00	0.00	0.01
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Community Commercial	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Low	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Downtown	0.00	0.06	0.06	0.00	0.00	0.06
Waterfront	0.00	0.01	0.01	0.00	0.00	0.01
Regional Serving Facility	0.00	0.02	0.02	0.00	0.00	0.02
2040 Total	0.00	0.12	0.12	0.00	0.00	0.12

Area Sources

GHG Emissions, MT/Year

Medical Office Building	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.00	0.01	0.01	0.00	0.00	0.01
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Community Commercial	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Low	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Downtown	0.00	0.06	0.06	0.00	0.00	0.06
Waterfront	0.00	0.01	0.01	0.00	0.00	0.01
Regional Serving Facility	0.00	0.02	0.02	0.00	0.00	0.02
2040 Total	0.00	0.12	0.12	0.00	0.00	0.12

Area Sources

GHG Emissions, MT/Year

Convenience Market	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.00	0.03	0.03	0.00	0.00	0.03
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	0.01	0.01	0.00	0.00	0.01
Neighborhood Serving Centers and Corridors – Moderate	0.00	0.01	0.01	0.00	0.00	0.01
Community Commercial	0.00	0.03	0.03	0.00	0.00	0.03
Transit-Oriented Development - Low	0.00	0.01	0.01	0.00	0.00	0.01
Transit-Oriented Development - Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Downtown	0.00	0.01	0.01	0.00	0.00	0.01
Waterfront	0.00	0.01	0.01	0.00	0.00	0.01
Regional Serving Facility	0.00	0.01	0.01	0.00	0.00	0.01
2040 Total	0.00	0.13	0.13	0.00	0.00	0.13

Area Sources

GHG Emissions, MT/Year

Pharmacy/Drug Store	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.00	0.03	0.03	0.00	0.00	0.03
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	0.01	0.01	0.00	0.00	0.01
Neighborhood Serving Centers and Corridors – Moderate	0.00	0.01	0.01	0.00	0.00	0.01
Community Commercial	0.00	0.03	0.03	0.00	0.00	0.03
Transit-Oriented Development - Low	0.00	0.01	0.01	0.00	0.00	0.01
Transit-Oriented Development - Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Downtown	0.00	0.01	0.01	0.00	0.00	0.01
Waterfront	0.00	0.01	0.01	0.00	0.00	0.01
Regional Serving Facility	0.00	0.01	0.01	0.00	0.00	0.01
2040 Total	0.00	0.13	0.13	0.00	0.00	0.13

Area Sources

GHG Emissions, MT/Year

Regional Shopping Center	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.00	0.03	0.03	0.00	0.00	0.03
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	0.01	0.01	0.00	0.00	0.01
Neighborhood Serving Centers and Corridors – Moderate	0.00	0.01	0.01	0.00	0.00	0.01
Community Commercial	0.00	0.03	0.03	0.00	0.00	0.03
Transit-Oriented Development - Low	0.00	0.01	0.01	0.00	0.00	0.01
Transit-Oriented Development - Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Downtown	0.00	0.01	0.01	0.00	0.00	0.01
Waterfront	0.00	0.01	0.01	0.00	0.00	0.01
Regional Serving Facility	0.00	0.01	0.01	0.00	0.00	0.01
2040 Total	0.00	0.13	0.13	0.00	0.00	0.13

Area Sources

GHG Emissions, MT/Year

Strip Mall	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.00	0.03	0.03	0.00	0.00	0.03
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	0.01	0.01	0.00	0.00	0.01
Neighborhood Serving Centers and Corridors – Moderate	0.00	0.01	0.01	0.00	0.00	0.01
Community Commercial	0.00	0.03	0.03	0.00	0.00	0.03
Transit-Oriented Development - Low	0.00	0.01	0.01	0.00	0.00	0.01
Transit-Oriented Development - Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Downtown	0.00	0.01	0.01	0.00	0.00	0.01
Waterfront	0.00	0.01	0.01	0.00	0.00	0.01
Regional Serving Facility	0.00	0.01	0.01	0.00	0.00	0.01
2040 Total	0.00	0.13	0.13	0.00	0.00	0.13

Area Sources

GHG Emissions, MT/Year

General Light Industrial	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.01	0.01	0.00	0.00	0.01
Founding and Contemporary Neighborhood	0.00	0.01	0.01	0.00	0.00	0.01
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Community Commercial	0.00	0.01	0.01	0.00	0.00	0.01
Transit-Oriented Development - Low	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.00	0.01	0.01	0.00	0.00	0.01
Industrial	0.00	0.03	0.03	0.00	0.00	0.03
Downtown	0.00	0.00	0.00	0.00	0.00	0.00
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	0.00	0.13	0.13	0.00	0.00	0.13
2040 Total	0.00	0.20	0.20	0.00	0.00	0.20

Area Sources

GHG Emissions, MT/Year

Manufacturing	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.01	0.01	0.00	0.00	0.01
Founding and Contemporary Neighborhood	0.00	0.01	0.01	0.00	0.00	0.01
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Community Commercial	0.00	0.01	0.01	0.00	0.00	0.01
Transit-Oriented Development - Low	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.00	0.01	0.01	0.00	0.00	0.01
Industrial	0.00	0.03	0.03	0.00	0.00	0.03
Downtown	0.00	0.00	0.00	0.00	0.00	0.00
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	0.00	0.13	0.13	0.00	0.00	0.13
2040 Total	0.00	0.20	0.20	0.00	0.00	0.20

Area Sources

GHG Emissions, MT/Year

	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Research & Development						
Open Space	0.00	0.01	0.01	0.00	0.00	0.01
Founding and Contemporary Neighborhood	0.00	0.01	0.01	0.00	0.00	0.01
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Community Commercial	0.00	0.01	0.01	0.00	0.00	0.01
Transit-Oriented Development - Low	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.00	0.01	0.01	0.00	0.00	0.01
Industrial	0.00	0.03	0.03	0.00	0.00	0.03
Downtown	0.00	0.00	0.00	0.00	0.00	0.00
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	0.00	0.13	0.13	0.00	0.00	0.13
2040 Total	0.00	0.20	0.20	0.00	0.00	0.20

2040 GHG Emissions	Energy Sources GHG Emissions, MT/Year Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Single Family Residential						
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.00	171,417.35	171,417.35	5.15	2.27	172,247.51
Multi-Family – Low	0.00	1,694.81	1,694.81	0.05	0.02	1,703.02
Multi-Family – Moderate	0.00	1,140.05	1,140.05	0.03	0.02	1,145.57
Neighborhood Serving Centers and Corridors – Low	0.00	2,108.11	2,108.11	0.06	0.03	2,118.32
Neighborhood Serving Centers and Corridors – Moderate	0.00	1,348.08	1,348.08	0.04	0.02	1,354.61
Community Commercial	0.00	235.78	235.78	0.01	0.00	236.92
Transit-Oriented Development - Low	0.00	754.48	754.48	0.02	0.01	758.14
Transit-Oriented Development - Moderate	0.00	540.90	540.90	0.02	0.01	543.52
Neo-Industrial	0.00	244.10	244.10	0.01	0.00	245.28
Industrial	0.00	402.21	402.21	0.01	0.01	404.15
Downtown	0.00	956.97	956.97	0.03	0.01	961.61
Waterfront	0.00	16.64	16.64	0.00	0.00	16.72
Regional Serving Facility	0.00	16.64	16.64	0.00	0.00	16.72
2040 Total	0.00	180,876.12	180,876.12	5.43	2.39	181,752.08

	Energy Sources GHG Emissions, MT/Year Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Apartments Low Rise						
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.00	22,911.68	22,911.68	0.68	0.32	23,024.48
Multi-Family – Low	0.00	4,055.98	4,055.98	0.12	0.06	4,075.95
Multi-Family – Moderate	0.00	7,225.76	7,225.76	0.21	0.10	7,261.34
Neighborhood Serving Centers and Corridors – Low	0.00	2,890.72	2,890.72	0.09	0.04	2,904.95
Neighborhood Serving Centers and Corridors – Moderate	0.00	5,853.14	5,853.14	0.17	0.08	5,881.95
Community Commercial	0.00	1,463.41	1,463.41	0.04	0.02	1,470.62
Transit-Oriented Development - Low	0.00	3,983.76	3,983.76	0.12	0.06	4,003.38
Transit-Oriented Development - Moderate	0.00	4,209.18	4,209.18	0.12	0.06	4,229.91
Neo-Industrial	0.00	720.10	720.10	0.02	0.01	723.65
Industrial	0.00	419.37	419.37	0.01	0.01	421.44
Downtown	0.00	8,467.37	8,467.37	0.25	0.12	8,509.06
Waterfront	0.00	1,515.00	1,515.00	0.04	0.02	1,522.46
Regional Serving Facility	0.00	1,851.83	1,851.83	0.05	0.03	1,860.95
2040 Total	0.00	65,567.31	65,567.31	1.93	0.93	65,890.12

Energy Sources
GHG Emissions, MT/Year

Apartments Mid Rise	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.00	20,132.55	20,132.55	0.61	0.28	20,229.96
Multi-Family – Low	0.00	3,564.00	3,564.00	0.11	0.05	3,581.24
Multi-Family – Moderate	0.00	6,349.30	6,349.30	0.19	0.09	6,380.02
Neighborhood Serving Centers and Corridors – Low	0.00	2,540.08	2,540.08	0.08	0.03	2,552.37
Neighborhood Serving Centers and Corridors – Moderate	0.00	5,143.17	5,143.17	0.16	0.07	5,168.05
Community Commercial	0.00	1,285.91	1,285.91	0.04	0.02	1,292.13
Transit-Oriented Development - Low	0.00	3,500.54	3,500.54	0.11	0.05	3,517.48
Transit-Oriented Development - Moderate	0.00	3,698.62	3,698.62	0.11	0.05	3,716.51
Neo-Industrial	0.00	632.75	632.75	0.02	0.01	635.82
Industrial	0.00	368.50	368.50	0.01	0.01	370.29
Downtown	0.00	7,440.30	7,440.30	0.23	0.10	7,476.30
Waterfront	0.00	1,331.23	1,331.23	0.04	0.02	1,337.67
Regional Serving Facility	0.00	1,627.21	1,627.21	0.05	0.02	1,635.08
2040 Total	0.00	57,614.17	57,614.17	1.75	0.79	57,892.92

Energy Sources
GHG Emissions, MT/Year

Condos/Townhouse	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.00	10,719.46	10,719.46	0.32	0.15	10,771.47
Multi-Family – Low	0.00	1,897.63	1,897.63	0.06	0.03	1,906.84
Multi-Family – Moderate	0.00	3,380.65	3,380.65	0.10	0.05	3,397.05
Neighborhood Serving Centers and Corridors – Low	0.00	1,352.45	1,352.45	0.04	0.02	1,359.01
Neighborhood Serving Centers and Corridors – Moderate	0.00	2,738.45	2,738.45	0.08	0.04	2,751.74
Community Commercial	0.00	684.67	684.67	0.02	0.01	687.99
Transit-Oriented Development - Low	0.00	1,863.84	1,863.84	0.06	0.03	1,872.89
Transit-Oriented Development - Moderate	0.00	1,969.31	1,969.31	0.06	0.03	1,978.86
Neo-Industrial	0.00	336.91	336.91	0.01	0.00	338.54
Industrial	0.00	196.21	196.21	0.01	0.00	197.16
Downtown	0.00	3,961.54	3,961.54	0.12	0.05	3,980.77
Waterfront	0.00	708.81	708.81	0.02	0.01	712.25
Regional Serving Facility	0.00	866.40	866.40	0.03	0.01	870.60
2040 Total	0.00	30,676.33	30,676.33	0.93	0.42	30,825.18

Energy Sources
GHG Emissions, MT/Year

City Park	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Community Commercial	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Low	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Downtown	0.00	0.00	0.00	0.00	0.00	0.00
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	0.00	0.00	0.00	0.00	0.00	0.00
2040 Total	0.00	0.00	0.00	0.00	0.00	0.00

Energy Sources
GHG Emissions, MT/Year

Golf Course	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Community Commercial	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Low	0.00	0.00	0.00	0.00	0.00	0.00
Transit-Oriented Development - Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neo-Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Industrial	0.00	0.00	0.00	0.00	0.00	0.00
Downtown	0.00	0.00	0.00	0.00	0.00	0.00
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	0.00	0.00	0.00	0.00	0.00	0.00
2040 Total	0.00	0.00	0.00	0.00	0.00	0.00

Energy Sources
GHG Emissions, MT/Year

Library	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	2,228.80	2,228.80	0.02	0.02	2,238.69
Founding and Contemporary Neighborhood	0.00	6,043.14	6,043.14	0.05	0.05	6,069.95
Multi-Family – Low	0.00	64.86	64.86	0.00	0.00	65.15
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	121.53	121.53	0.00	0.00	122.07
Neighborhood Serving Centers and Corridors – Moderate	0.00	102.36	102.36	0.00	0.00	102.81
Community Commercial	0.00	97.61	97.61	0.00	0.00	98.05
Transit-Oriented Development - Low	0.00	234.88	234.88	0.00	0.00	235.92
Transit-Oriented Development - Moderate	0.00	231.06	231.06	0.00	0.00	232.08
Neo-Industrial	0.00	14.93	14.93	0.00	0.00	14.99
Industrial	0.00	134.32	134.32	0.00	0.00	134.92
Downtown	0.00	503.94	503.94	0.00	0.00	506.17
Waterfront	0.00	344.81	344.81	0.00	0.00	346.34
Regional Serving Facility	0.00	5,130.41	5,130.41	0.04	0.04	5,153.18
2040 Total	0.00	15,252.65	15,252.65	0.13	0.13	15,320.32

Energy Sources
GHG Emissions, MT/Year

Junior College	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	2,479.18	2,479.18	0.02	0.02	2,490.88
Founding and Contemporary Neighborhood	0.00	6,721.99	6,721.99	0.05	0.05	6,753.73
Multi-Family – Low	0.00	72.15	72.15	0.00	0.00	72.49
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	135.18	135.18	0.00	0.00	135.82
Neighborhood Serving Centers and Corridors – Moderate	0.00	113.85	113.85	0.00	0.00	114.39
Community Commercial	0.00	108.58	108.58	0.00	0.00	109.09
Transit-Oriented Development - Low	0.00	261.27	261.27	0.00	0.00	262.50
Transit-Oriented Development - Moderate	0.00	257.01	257.01	0.00	0.00	258.23
Neo-Industrial	0.00	16.60	16.60	0.00	0.00	16.68
Industrial	0.00	149.41	149.41	0.00	0.00	150.11
Downtown	0.00	560.55	560.55	0.00	0.00	563.20
Waterfront	0.00	383.55	383.55	0.00	0.00	385.36
Regional Serving Facility	0.00	5,706.74	5,706.74	0.04	0.04	5,733.68
2040 Total	0.00	16,966.06	16,966.06	0.13	0.13	17,046.15

Energy Sources
GHG Emissions, MT/Year

General Office Building	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	53.83	53.83	0.00	0.00	54.05
Founding and Contemporary Neighborhood	0.00	946.32	946.32	0.01	0.01	950.20
Multi-Family – Low	0.00	1.28	1.28	0.00	0.00	1.28
Multi-Family – Moderate	0.00	0.75	0.75	0.00	0.00	0.75
Neighborhood Serving Centers and Corridors – Low	0.00	228.04	228.04	0.00	0.00	228.98
Neighborhood Serving Centers and Corridors – Moderate	0.00	357.36	357.36	0.00	0.00	358.83
Community Commercial	0.00	473.25	473.25	0.00	0.00	475.19
Transit-Oriented Development - Low	0.00	249.19	249.19	0.00	0.00	250.21
Transit-Oriented Development - Moderate	0.00	59.17	59.17	0.00	0.00	59.41
Neo-Industrial	0.00	21.21	21.21	0.00	0.00	21.30
Industrial	0.00	501.40	501.40	0.00	0.00	503.45
Downtown	0.00	7,077.10	7,077.10	0.06	0.06	7,106.15
Waterfront	0.00	1,087.88	1,087.88	0.01	0.01	1,092.35
Regional Serving Facility	0.00	2,849.74	2,849.74	0.02	0.02	2,861.44
2040 Total	0.00	13,906.51	13,906.51	0.12	0.12	13,963.61

Energy Sources
GHG Emissions, MT/Year

Medical Office Building	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	53.83	53.83	0.00	0.00	54.05
Founding and Contemporary Neighborhood	0.00	946.32	946.32	0.01	0.01	950.20
Multi-Family – Low	0.00	1.28	1.28	0.00	0.00	1.28
Multi-Family – Moderate	0.00	0.75	0.75	0.00	0.00	0.75
Neighborhood Serving Centers and Corridors – Low	0.00	228.04	228.04	0.00	0.00	228.98
Neighborhood Serving Centers and Corridors – Moderate	0.00	357.36	357.36	0.00	0.00	358.83
Community Commercial	0.00	473.25	473.25	0.00	0.00	475.19
Transit-Oriented Development - Low	0.00	249.19	249.19	0.00	0.00	250.21
Transit-Oriented Development - Moderate	0.00	59.17	59.17	0.00	0.00	59.41
Neo-Industrial	0.00	21.21	21.21	0.00	0.00	21.30
Industrial	0.00	501.40	501.40	0.00	0.00	503.45
Downtown	0.00	7,077.10	7,077.10	0.06	0.06	7,106.15
Waterfront	0.00	1,087.88	1,087.88	0.01	0.01	1,092.35
Regional Serving Facility	0.00	2,849.74	2,849.74	0.02	0.02	2,861.44
2040 Total	0.00	13,906.51	13,906.51	0.12	0.12	13,963.61

Energy Sources
GHG Emissions, MT/Year

Convenience Market	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	417.69	417.69	0.00	0.00	419.24
Founding and Contemporary Neighborhood	0.00	2,729.67	2,729.67	0.03	0.03	2,739.78
Multi-Family – Low	0.00	11.12	11.12	0.00	0.00	11.16
Multi-Family – Moderate	0.00	6.53	6.53	0.00	0.00	6.55
Neighborhood Serving Centers and Corridors – Low	0.00	1,109.78	1,109.78	0.01	0.01	1,113.89
Neighborhood Serving Centers and Corridors – Moderate	0.00	1,230.37	1,230.37	0.01	0.01	1,234.93
Community Commercial	0.00	2,526.84	2,526.84	0.03	0.03	2,536.20
Transit-Oriented Development - Low	0.00	532.52	532.52	0.01	0.01	534.49
Transit-Oriented Development - Moderate	0.00	381.91	381.91	0.00	0.00	383.32
Neo-Industrial	0.00	244.52	244.52	0.00	0.00	245.43
Industrial	0.00	185.41	185.41	0.00	0.00	186.10
Downtown	0.00	1,360.63	1,360.63	0.01	0.01	1,365.67
Waterfront	0.00	1,253.43	1,253.43	0.01	0.01	1,258.07
Regional Serving Facility	0.00	706.44	706.44	0.01	0.01	709.06
2040 Total	0.00	12,696.87	12,696.87	0.13	0.13	12,743.90

Energy Sources
GHG Emissions, MT/Year

Pharmacy/Drug Store	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	417.69	417.69	0.00	0.00	419.24
Founding and Contemporary Neighborhood	0.00	2,729.67	2,729.67	0.03	0.03	2,739.78
Multi-Family – Low	0.00	11.12	11.12	0.00	0.00	11.16
Multi-Family – Moderate	0.00	6.53	6.53	0.00	0.00	6.55
Neighborhood Serving Centers and Corridors – Low	0.00	1,109.78	1,109.78	0.01	0.01	1,113.89
Neighborhood Serving Centers and Corridors – Moderate	0.00	1,230.37	1,230.37	0.01	0.01	1,234.93
Community Commercial	0.00	2,526.84	2,526.84	0.03	0.03	2,536.20
Transit-Oriented Development - Low	0.00	532.52	532.52	0.01	0.01	534.49
Transit-Oriented Development - Moderate	0.00	381.91	381.91	0.00	0.00	383.32
Neo-Industrial	0.00	244.52	244.52	0.00	0.00	245.43
Industrial	0.00	185.41	185.41	0.00	0.00	186.10
Downtown	0.00	1,360.63	1,360.63	0.01	0.01	1,365.67
Waterfront	0.00	1,253.43	1,253.43	0.01	0.01	1,258.07
Regional Serving Facility	0.00	706.44	706.44	0.01	0.01	709.06
2040 Total	0.00	12,696.87	12,696.87	0.13	0.13	12,743.90

Energy Sources
GHG Emissions, MT/Year

Regional Shopping Center	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	417.69	417.69	0.00	0.00	419.24
Founding and Contemporary Neighborhood	0.00	2,729.67	2,729.67	0.03	0.03	2,739.78
Multi-Family – Low	0.00	11.12	11.12	0.00	0.00	11.16
Multi-Family – Moderate	0.00	6.53	6.53	0.00	0.00	6.55
Neighborhood Serving Centers and Corridors – Low	0.00	1,109.78	1,109.78	0.01	0.01	1,113.89
Neighborhood Serving Centers and Corridors – Moderate	0.00	1,230.37	1,230.37	0.01	0.01	1,234.93
Community Commercial	0.00	2,526.84	2,526.84	0.03	0.03	2,536.20
Transit-Oriented Development - Low	0.00	532.52	532.52	0.01	0.01	534.49
Transit-Oriented Development - Moderate	0.00	381.91	381.91	0.00	0.00	383.32
Neo-Industrial	0.00	244.52	244.52	0.00	0.00	245.43
Industrial	0.00	185.41	185.41	0.00	0.00	186.10
Downtown	0.00	1,360.63	1,360.63	0.01	0.01	1,365.67
Waterfront	0.00	1,253.43	1,253.43	0.01	0.01	1,258.07
Regional Serving Facility	0.00	706.44	706.44	0.01	0.01	709.06
2040 Total	0.00	12,696.87	12,696.87	0.13	0.13	12,743.90

Energy Sources
GHG Emissions, MT/Year

Strip Mall	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	417.69	417.69	0.00	0.00	419.24
Founding and Contemporary Neighborhood	0.00	2,729.67	2,729.67	0.03	0.03	2,739.78
Multi-Family – Low	0.00	11.12	11.12	0.00	0.00	11.16
Multi-Family – Moderate	0.00	6.53	6.53	0.00	0.00	6.55
Neighborhood Serving Centers and Corridors – Low	0.00	1,109.78	1,109.78	0.01	0.01	1,113.89
Neighborhood Serving Centers and Corridors – Moderate	0.00	1,230.37	1,230.37	0.01	0.01	1,234.93
Community Commercial	0.00	2,526.84	2,526.84	0.03	0.03	2,536.20
Transit-Oriented Development - Low	0.00	532.52	532.52	0.01	0.01	534.49
Transit-Oriented Development - Moderate	0.00	381.91	381.91	0.00	0.00	383.32
Neo-Industrial	0.00	244.52	244.52	0.00	0.00	245.43
Industrial	0.00	185.41	185.41	0.00	0.00	186.10
Downtown	0.00	1,360.63	1,360.63	0.01	0.01	1,365.67
Waterfront	0.00	1,253.43	1,253.43	0.01	0.01	1,258.07
Regional Serving Facility	0.00	706.44	706.44	0.01	0.01	709.06
2040 Total	0.00	12,696.87	12,696.87	0.13	0.13	12,743.90

Energy Sources
GHG Emissions, MT/Year

General Light Industrial	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	1,103.34	1,103.34	0.01	0.01	1,108.23
Founding and Contemporary Neighborhood	0.00	605.30	605.30	0.01	0.01	607.99
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	95.44	95.44	0.00	0.00	95.86
Neighborhood Serving Centers and Corridors – Moderate	0.00	160.21	160.21	0.00	0.00	160.92
Community Commercial	0.00	1,022.87	1,022.87	0.01	0.01	1,027.41
Transit-Oriented Development - Low	0.00	6.52	6.52	0.00	0.00	6.55
Transit-Oriented Development - Moderate	0.00	4.74	4.74	0.00	0.00	4.76
Neo-Industrial	0.00	1,361.06	1,361.06	0.01	0.01	1,367.10
Industrial	0.00	3,840.44	3,840.44	0.03	0.03	3,857.48
Downtown	0.00	58.59	58.59	0.00	0.00	58.85
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	0.00	15,426.62	15,426.62	0.13	0.13	15,495.06
2040 Total	0.00	23,685.14	23,685.14	0.20	0.20	23,790.22

Energy Sources
GHG Emissions, MT/Year

Manufacturing	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	1,103.34	1,103.34	0.01	0.01	1,108.23
Founding and Contemporary Neighborhood	0.00	605.30	605.30	0.01	0.01	607.99
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	95.44	95.44	0.00	0.00	95.86
Neighborhood Serving Centers and Corridors – Moderate	0.00	160.21	160.21	0.00	0.00	160.92
Community Commercial	0.00	1,022.87	1,022.87	0.01	0.01	1,027.41
Transit-Oriented Development - Low	0.00	6.52	6.52	0.00	0.00	6.55
Transit-Oriented Development - Moderate	0.00	4.74	4.74	0.00	0.00	4.76
Neo-Industrial	0.00	1,361.06	1,361.06	0.01	0.01	1,367.10
Industrial	0.00	3,840.44	3,840.44	0.03	0.03	3,857.48
Downtown	0.00	58.59	58.59	0.00	0.00	58.85
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	0.00	15,426.62	15,426.62	0.13	0.13	15,495.06
2040 Total	0.00	23,685.14	23,685.14	0.20	0.20	23,790.22

Energy Sources

GHG Emissions, MT/Year

Research & Development	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	1,103.34	1,103.34	0.01	0.01	1,108.23
Founding and Contemporary Neighborhood	0.00	605.30	605.30	0.01	0.01	607.99
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	95.44	95.44	0.00	0.00	95.86
Neighborhood Serving Centers and Corridors – Moderate	0.00	160.21	160.21	0.00	0.00	160.92
Community Commercial	0.00	1,022.87	1,022.87	0.01	0.01	1,027.41
Transit-Oriented Development - Low	0.00	6.52	6.52	0.00	0.00	6.55
Transit-Oriented Development - Moderate	0.00	4.74	4.74	0.00	0.00	4.76
Neo-Industrial	0.00	1,361.06	1,361.06	0.01	0.01	1,367.10
Industrial	0.00	3,840.44	3,840.44	0.03	0.03	3,857.48
Downtown	0.00	58.59	58.59	0.00	0.00	58.85
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	0.00	15,426.62	15,426.62	0.13	0.13	15,495.06
2040 Total	0.00	23,685.14	23,685.14	0.20	0.20	23,790.22

2040 GHG Emissions

Waste Sources
GHG Emissions, MT/Year

Single Family Residential	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	15,428.90	0.00	15,428.90	912.55	0.00	38,226.18
Multi-Family – Low	152.55	0.00	152.55	9.02	0.00	377.94
Multi-Family – Moderate	102.61	0.00	102.61	6.07	0.00	254.23
Neighborhood Serving Centers and Corridors – Low	189.75	0.00	189.75	11.22	0.00	470.11
Neighborhood Serving Centers and Corridors – Moderate	121.34	0.00	121.34	7.18	0.00	300.62
Community Commercial	21.22	0.00	21.22	1.26	0.00	52.58
Transit-Oriented Development - Low	67.91	0.00	67.91	4.02	0.00	168.25
Transit-Oriented Development - Moderate	48.69	0.00	48.69	2.88	0.00	120.62
Neo-Industrial	21.97	0.00	21.97	1.30	0.00	54.43
Industrial	36.20	0.00	36.20	2.14	0.00	89.69
Downtown	86.14	0.00	86.14	5.09	0.00	213.41
Waterfront	1.50	0.00	1.50	0.09	0.00	3.71
Regional Serving Facility	1.50	0.00	1.50	0.09	0.00	3.71
2040 Total	16,280.26	0.00	16,280.26	962.90	0.00	40,335.50

Waste Sources
GHG Emissions, MT/Year

Apartments Low Rise	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	1,382.48	0.00	1,382.48	81.71	0.00	3,425.11
Multi-Family – Low	244.74	0.00	244.74	14.46	0.00	606.34
Multi-Family – Moderate	436.00	0.00	436.00	25.77	0.00	1,080.19
Neighborhood Serving Centers and Corridors – Low	174.42	0.00	174.42	10.31	0.00	432.14
Neighborhood Serving Centers and Corridors – Moderate	353.18	0.00	353.18	20.87	0.00	875.00
Community Commercial	88.30	0.00	88.30	5.22	0.00	218.77
Transit-Oriented Development - Low	240.38	0.00	240.38	14.21	0.00	595.54
Transit-Oriented Development - Moderate	253.98	0.00	253.98	15.01	0.00	629.24
Neo-Industrial	43.45	0.00	43.45	2.57	0.00	107.65
Industrial	25.30	0.00	25.30	1.50	0.00	62.69
Downtown	510.92	0.00	510.92	30.20	0.00	1,265.80
Waterfront	91.41	0.00	91.41	5.40	0.00	226.48
Regional Serving Facility	111.74	0.00	111.74	6.60	0.00	276.83
2040 Total	3,956.30	0.00	3,956.30	233.83	0.00	9,801.77

Waste Sources
GHG Emissions, MT/Year

Apartments Mid Rise	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	1,382.50	0.00	1,382.50	81.70	0.00	3,425.06
Multi-Family – Low	244.74	0.00	244.74	14.46	0.00	606.33
Multi-Family – Moderate	436.01	0.00	436.01	25.77	0.00	1,080.18
Neighborhood Serving Centers and Corridors – Low	174.43	0.00	174.43	10.31	0.00	432.13
Neighborhood Serving Centers and Corridors – Moderate	353.18	0.00	353.18	20.87	0.00	874.98
Community Commercial	88.30	0.00	88.30	5.22	0.00	218.77
Transit-Oriented Development - Low	240.38	0.00	240.38	14.21	0.00	595.53
Transit-Oriented Development - Moderate	253.98	0.00	253.98	15.01	0.00	629.23
Neo-Industrial	43.45	0.00	43.45	2.57	0.00	107.65
Industrial	25.30	0.00	25.30	1.50	0.00	62.69
Downtown	510.92	0.00	510.92	30.19	0.00	1,265.78
Waterfront	91.42	0.00	91.42	5.40	0.00	226.48
Regional Serving Facility	111.74	0.00	111.74	6.60	0.00	276.83
2040 Total	3,956.35	0.00	3,956.35	233.82	0.00	9,801.63

Waste Sources
GHG Emissions, MT/Year

Condos/Townhouse	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	582.10	0.00	582.10	34.40	0.00	1,442.15
Multi-Family – Low	103.05	0.00	103.05	6.09	0.00	255.30
Multi-Family – Moderate	183.58	0.00	183.58	10.85	0.00	454.82
Neighborhood Serving Centers and Corridors – Low	73.44	0.00	73.44	4.34	0.00	181.95
Neighborhood Serving Centers and Corridors – Moderate	148.71	0.00	148.71	8.79	0.00	368.42
Community Commercial	37.18	0.00	37.18	2.20	0.00	92.11
Transit-Oriented Development - Low	101.21	0.00	101.21	5.98	0.00	250.75
Transit-Oriented Development - Moderate	106.94	0.00	106.94	6.32	0.00	264.94
Neo-Industrial	18.29	0.00	18.29	1.08	0.00	45.33
Industrial	10.65	0.00	10.65	0.63	0.00	26.40
Downtown	215.12	0.00	215.12	12.71	0.00	532.97
Waterfront	38.49	0.00	38.49	2.27	0.00	95.36
Regional Serving Facility	47.05	0.00	47.05	2.78	0.00	116.56
2040 Total	1,665.81	0.00	1,665.81	98.45	0.00	4,127.06

Waste Sources
GHG Emissions, MT/Year

City Park	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.34	0.00	0.34	0.02	0.00	0.85
Founding and Contemporary Neighborhood	0.93	0.00	0.93	0.05	0.00	2.30
Multi-Family – Low	0.01	0.00	0.01	0.00	0.00	0.02
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.02	0.00	0.02	0.00	0.00	0.05
Neighborhood Serving Centers and Corridors – Moderate	0.02	0.00	0.02	0.00	0.00	0.04
Community Commercial	0.01	0.00	0.01	0.00	0.00	0.04
Transit-Oriented Development - Low	0.04	0.00	0.04	0.00	0.00	0.09
Transit-Oriented Development - Moderate	0.04	0.00	0.04	0.00	0.00	0.09
Neo-Industrial	0.00	0.00	0.00	0.00	0.00	0.01
Industrial	0.02	0.00	0.02	0.00	0.00	0.05
Downtown	0.08	0.00	0.08	0.00	0.00	0.19
Waterfront	0.05	0.00	0.05	0.00	0.00	0.13
Regional Serving Facility	0.79	0.00	0.79	0.04	0.00	1.95
2040 Total	2.34	0.00	2.34	0.13	0.00	5.80

Waste Sources
GHG Emissions, MT/Year

Golf Course	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	3.53	0.00	3.53	0.21	0.00	8.75
Founding and Contemporary Neighborhood	9.58	0.00	9.58	0.57	0.00	23.73
Multi-Family – Low	0.10	0.00	0.10	0.01	0.00	0.25
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.19	0.00	0.19	0.01	0.00	0.48
Neighborhood Serving Centers and Corridors – Moderate	0.16	0.00	0.16	0.01	0.00	0.40
Community Commercial	0.15	0.00	0.15	0.01	0.00	0.38
Transit-Oriented Development - Low	0.37	0.00	0.37	0.02	0.00	0.92
Transit-Oriented Development - Moderate	0.37	0.00	0.37	0.02	0.00	0.91
Neo-Industrial	0.02	0.00	0.02	0.00	0.00	0.06
Industrial	0.21	0.00	0.21	0.01	0.00	0.53
Downtown	0.80	0.00	0.80	0.05	0.00	1.98
Waterfront	0.55	0.00	0.55	0.03	0.00	1.35
Regional Serving Facility	8.13	0.00	8.13	0.48	0.00	20.15
2040 Total	24.18	0.00	24.18	1.43	0.00	59.89

Waste Sources
GHG Emissions, MT/Year

Library	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	152.40	0.00	152.40	9.01	0.00	377.57
Founding and Contemporary Neighborhood	413.22	0.00	413.22	24.42	0.00	1,023.72
Multi-Family – Low	4.44	0.00	4.44	0.26	0.00	10.99
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	8.31	0.00	8.31	0.49	0.00	20.59
Neighborhood Serving Centers and Corridors – Moderate	7.00	0.00	7.00	0.41	0.00	17.34
Community Commercial	6.67	0.00	6.67	0.39	0.00	16.54
Transit-Oriented Development - Low	16.06	0.00	16.06	0.95	0.00	39.79
Transit-Oriented Development - Moderate	15.80	0.00	15.80	0.93	0.00	39.14
Neo-Industrial	1.02	0.00	1.02	0.06	0.00	2.53
Industrial	9.18	0.00	9.18	0.54	0.00	22.75
Downtown	34.46	0.00	34.46	2.04	0.00	85.37
Waterfront	23.58	0.00	23.58	1.39	0.00	58.41
Regional Serving Facility	350.81	0.00	350.81	20.73	0.00	869.11
2040 Total	1,042.94	0.00	1,042.94	61.64	0.00	2,583.84

Waste Sources
GHG Emissions, MT/Year

Junior College	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	215.12	0.00	215.12	12.71	0.00	532.94
Founding and Contemporary Neighborhood	583.26	0.00	583.26	34.47	0.00	1,445.00
Multi-Family – Low	6.26	0.00	6.26	0.37	0.00	15.51
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	11.73	0.00	11.73	0.69	0.00	29.06
Neighborhood Serving Centers and Corridors – Moderate	9.88	0.00	9.88	0.58	0.00	24.47
Community Commercial	9.42	0.00	9.42	0.56	0.00	23.34
Transit-Oriented Development - Low	22.67	0.00	22.67	1.34	0.00	56.16
Transit-Oriented Development - Moderate	22.30	0.00	22.30	1.32	0.00	55.25
Neo-Industrial	1.44	0.00	1.44	0.09	0.00	3.57
Industrial	12.96	0.00	12.96	0.77	0.00	32.12
Downtown	48.64	0.00	48.64	2.87	0.00	120.50
Waterfront	33.28	0.00	33.28	1.97	0.00	82.45
Regional Serving Facility	495.17	0.00	495.17	29.27	0.00	1,226.76
2040 Total	1,472.13	0.00	1,472.13	87.01	0.00	3,647.13

Waste Sources
GHG Emissions, MT/Year

General Office Building	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	3.87	0.00	3.87	0.23	0.00	9.59
Founding and Contemporary Neighborhood	68.06	0.00	68.06	4.02	0.00	168.61
Multi-Family – Low	0.09	0.00	0.09	0.01	0.00	0.23
Multi-Family – Moderate	0.05	0.00	0.05	0.00	0.00	0.13
Neighborhood Serving Centers and Corridors – Low	16.40	0.00	16.40	0.97	0.00	40.63
Neighborhood Serving Centers and Corridors – Moderate	25.70	0.00	25.70	1.52	0.00	63.67
Community Commercial	34.03	0.00	34.03	2.01	0.00	84.32
Transit-Oriented Development - Low	17.92	0.00	17.92	1.06	0.00	44.40
Transit-Oriented Development - Moderate	4.26	0.00	4.26	0.25	0.00	10.54
Neo-Industrial	1.53	0.00	1.53	0.09	0.00	3.78
Industrial	36.06	0.00	36.06	2.13	0.00	89.33
Downtown	508.96	0.00	508.96	30.08	0.00	1,260.92
Waterfront	78.24	0.00	78.24	4.62	0.00	193.83
Regional Serving Facility	204.94	0.00	204.94	12.11	0.00	507.74
2040 Total	1,000.11	0.00	1,000.11	59.11	0.00	2,477.72

Waste Sources
GHG Emissions, MT/Year

Medical Office Building	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	44.96	0.00	44.96	2.66	0.00	111.38
Founding and Contemporary Neighborhood	790.34	0.00	790.34	46.71	0.00	1,958.05
Multi-Family – Low	1.07	0.00	1.07	0.06	0.00	2.65
Multi-Family – Moderate	0.63	0.00	0.63	0.04	0.00	1.55
Neighborhood Serving Centers and Corridors – Low	190.46	0.00	190.46	11.26	0.00	471.85
Neighborhood Serving Centers and Corridors – Moderate	298.46	0.00	298.46	17.64	0.00	739.42
Community Commercial	395.25	0.00	395.25	23.36	0.00	979.21
Transit-Oriented Development - Low	208.12	0.00	208.12	12.30	0.00	515.60
Transit-Oriented Development - Moderate	49.41	0.00	49.41	2.92	0.00	122.42
Neo-Industrial	17.72	0.00	17.72	1.05	0.00	43.90
Industrial	418.75	0.00	418.75	24.75	0.00	1,037.45
Downtown	5,910.63	0.00	5,910.63	349.31	0.00	14,643.35
Waterfront	908.57	0.00	908.57	53.69	0.00	2,250.95
Regional Serving Facility	2,380.04	0.00	2,380.04	140.66	0.00	5,896.44
2040 Total	11,614.41	0.00	11,614.41	686.39	0.00	28,774.21

Waste Sources
GHG Emissions, MT/Year

Convenience Market	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	113.85	0.00	113.85	6.73	0.00	282.05
Founding and Contemporary Neighborhood	744.00	0.00	744.00	43.97	0.00	1,843.22
Multi-Family – Low	3.03	0.00	3.03	0.18	0.00	7.51
Multi-Family – Moderate	1.78	0.00	1.78	0.11	0.00	4.41
Neighborhood Serving Centers and Corridors – Low	302.48	0.00	302.48	17.88	0.00	749.39
Neighborhood Serving Centers and Corridors – Moderate	335.35	0.00	335.35	19.82	0.00	830.81
Community Commercial	688.71	0.00	688.71	40.70	0.00	1,706.25
Transit-Oriented Development - Low	145.14	0.00	145.14	8.58	0.00	359.59
Transit-Oriented Development - Moderate	104.09	0.00	104.09	6.15	0.00	257.88
Neo-Industrial	66.65	0.00	66.65	3.94	0.00	165.12
Industrial	50.54	0.00	50.54	2.99	0.00	125.20
Downtown	370.85	0.00	370.85	21.92	0.00	918.77
Waterfront	341.63	0.00	341.63	20.19	0.00	846.38
Regional Serving Facility	192.55	0.00	192.55	11.38	0.00	477.03
2040 Total	3,460.65	0.00	3,460.65	204.52	0.00	8,573.60

Waste Sources
GHG Emissions, MT/Year

Pharmacy/Drug Store	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	113.91	0.00	113.91	6.73	0.00	282.20
Founding and Contemporary Neighborhood	744.39	0.00	744.39	43.99	0.00	1,844.20
Multi-Family – Low	3.03	0.00	3.03	0.18	0.00	7.51
Multi-Family – Moderate	1.78	0.00	1.78	0.11	0.00	4.41
Neighborhood Serving Centers and Corridors – Low	302.64	0.00	302.64	17.89	0.00	749.79
Neighborhood Serving Centers and Corridors – Moderate	335.53	0.00	335.53	19.83	0.00	831.26
Community Commercial	689.08	0.00	689.08	40.72	0.00	1,707.17
Transit-Oriented Development - Low	145.22	0.00	145.22	8.58	0.00	359.78
Transit-Oriented Development - Moderate	104.15	0.00	104.15	6.15	0.00	258.02
Neo-Industrial	66.68	0.00	66.68	3.94	0.00	165.20
Industrial	50.56	0.00	50.56	2.99	0.00	125.27
Downtown	371.05	0.00	371.05	21.93	0.00	919.26
Waterfront	341.82	0.00	341.82	20.20	0.00	846.84
Regional Serving Facility	192.65	0.00	192.65	11.39	0.00	477.28
2040 Total	3,462.50	0.00	3,462.50	204.63	0.00	8,578.18

Waste Sources
GHG Emissions, MT/Year

Regional Shopping Center	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	39.78	0.00	39.78	2.35	0.00	98.55
Founding and Contemporary Neighborhood	259.95	0.00	259.95	15.36	0.00	644.02
Multi-Family – Low	1.06	0.00	1.06	0.06	0.00	2.62
Multi-Family – Moderate	0.62	0.00	0.62	0.04	0.00	1.54
Neighborhood Serving Centers and Corridors – Low	105.69	0.00	105.69	6.25	0.00	261.84
Neighborhood Serving Centers and Corridors – Moderate	117.17	0.00	117.17	6.92	0.00	290.29
Community Commercial	240.64	0.00	240.64	14.22	0.00	596.17
Transit-Oriented Development - Low	50.71	0.00	50.71	3.00	0.00	125.64
Transit-Oriented Development - Moderate	36.37	0.00	36.37	2.15	0.00	90.10
Neo-Industrial	23.29	0.00	23.29	1.38	0.00	57.69
Industrial	17.66	0.00	17.66	1.04	0.00	43.74
Downtown	129.58	0.00	129.58	7.66	0.00	321.02
Waterfront	119.37	0.00	119.37	7.05	0.00	295.73
Regional Serving Facility	67.28	0.00	67.28	3.98	0.00	166.67
2040 Total	1,209.15	0.00	1,209.15	71.46	0.00	2,995.62

Waste Sources
GHG Emissions, MT/Year

Strip Mall	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	39.78	0.00	39.78	2.35	0.00	98.55
Founding and Contemporary Neighborhood	259.95	0.00	259.95	15.36	0.00	644.02
Multi-Family – Low	1.06	0.00	1.06	0.06	0.00	2.62
Multi-Family – Moderate	0.62	0.00	0.62	0.04	0.00	1.54
Neighborhood Serving Centers and Corridors – Low	105.69	0.00	105.69	6.25	0.00	261.84
Neighborhood Serving Centers and Corridors – Moderate	117.17	0.00	117.17	6.92	0.00	290.29
Community Commercial	240.64	0.00	240.64	14.22	0.00	596.17
Transit-Oriented Development - Low	50.71	0.00	50.71	3.00	0.00	125.64
Transit-Oriented Development - Moderate	36.37	0.00	36.37	2.15	0.00	90.10
Neo-Industrial	23.29	0.00	23.29	1.38	0.00	57.69
Industrial	17.66	0.00	17.66	1.04	0.00	43.74
Downtown	129.58	0.00	129.58	7.66	0.00	321.02
Waterfront	119.37	0.00	119.37	7.05	0.00	295.73
Regional Serving Facility	67.28	0.00	67.28	3.98	0.00	166.67
2040 Total	1,209.15	0.00	1,209.15	71.46	0.00	2,995.62

Waste Sources
GHG Emissions, MT/Year

General Light Industrial	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	101.56	0.00	101.56	6.00	0.00	251.62
Founding and Contemporary Neighborhood	55.72	0.00	55.72	3.29	0.00	138.04
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	8.78	0.00	8.78	0.52	0.00	21.76
Neighborhood Serving Centers and Corridors – Moderate	14.75	0.00	14.75	0.87	0.00	36.54
Community Commercial	94.16	0.00	94.16	5.56	0.00	233.27
Transit-Oriented Development - Low	0.60	0.00	0.60	0.04	0.00	1.49
Transit-Oriented Development - Moderate	0.44	0.00	0.44	0.03	0.00	1.08
Neo-Industrial	125.29	0.00	125.29	7.40	0.00	310.39
Industrial	353.51	0.00	353.51	20.89	0.00	875.82
Downtown	5.39	0.00	5.39	0.32	0.00	13.36
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	1,420.03	0.00	1,420.03	83.92	0.00	3,518.07
2040 Total	2,180.23	0.00	2,180.23	128.84	0.00	5,401.44

Waste Sources
GHG Emissions, MT/Year

Manufacturing	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	101.56	0.00	101.56	6.00	0.00	251.62
Founding and Contemporary Neighborhood	55.72	0.00	55.72	3.29	0.00	138.04
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	8.78	0.00	8.78	0.52	0.00	21.76
Neighborhood Serving Centers and Corridors – Moderate	14.75	0.00	14.75	0.87	0.00	36.54
Community Commercial	94.16	0.00	94.16	5.56	0.00	233.27
Transit-Oriented Development - Low	0.60	0.00	0.60	0.04	0.00	1.49
Transit-Oriented Development - Moderate	0.44	0.00	0.44	0.03	0.00	1.08
Neo-Industrial	125.29	0.00	125.29	7.40	0.00	310.39
Industrial	353.51	0.00	353.51	20.89	0.00	875.82
Downtown	5.39	0.00	5.39	0.32	0.00	13.36
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	1,420.03	0.00	1,420.03	83.92	0.00	3,518.07
2040 Total	2,180.23	0.00	2,180.23	128.84	0.00	5,401.44

Waste Sources

GHG Emissions, MT/Year

	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Research & Development						
Open Space	6.22	0.00	6.22	0.37	0.00	15.42
Founding and Contemporary Neighborhood	3.41	0.00	3.41	0.20	0.00	8.46
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.54	0.00	0.54	0.03	0.00	1.33
Neighborhood Serving Centers and Corridors – Moderate	0.90	0.00	0.90	0.05	0.00	2.24
Community Commercial	5.77	0.00	5.77	0.34	0.00	14.30
Transit-Oriented Development - Low	0.04	0.00	0.04	0.00	0.00	0.09
Transit-Oriented Development - Moderate	0.03	0.00	0.03	0.00	0.00	0.07
Neo-Industrial	7.68	0.00	7.68	0.45	0.00	19.02
Industrial	21.67	0.00	21.67	1.28	0.00	53.67
Downtown	0.33	0.00	0.33	0.02	0.00	0.82
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	87.03	0.00	87.03	5.14	0.00	215.60
2040 Total	133.62	0.00	133.62	7.89	0.00	331.03

Water Sources

2040 GHG Emissions — GHG Emissions, MT/Year

Single Family Residential	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	1,277.16	12,845.74	14,122.90	131.84	3.30	18,372.55
Multi-Family – Low	12.63	127.01	139.63	1.30	0.03	181.65
Multi-Family – Moderate	8.49	85.43	93.93	0.88	0.02	122.19
Neighborhood Serving Centers and Corridors – Low	15.71	157.98	173.69	1.62	0.04	225.95
Neighborhood Serving Centers and Corridors – Moderate	10.04	101.02	111.07	1.04	0.03	144.49
Community Commercial	1.76	17.67	19.43	0.18	0.00	25.27
Transit-Oriented Development - Low	5.62	56.54	62.16	0.58	0.01	80.87
Transit-Oriented Development - Moderate	4.03	40.53	44.56	0.42	0.01	57.97
Neo-Industrial	1.82	18.29	20.11	0.19	0.00	26.16
Industrial	3.00	30.14	33.14	0.31	0.01	43.11
Downtown	7.13	71.71	78.84	0.74	0.02	102.57
Waterfront	0.12	1.25	1.37	0.01	0.00	1.78
Regional Serving Facility	0.12	1.25	1.37	0.01	0.00	1.78
2040 Total	1,347.63	13,554.57	14,902.20	139.11	3.48	19,386.34

Water Sources

GHG Emissions, MT/Year

Apartments Low Rise	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	306.01	3,077.45	3,383.46	31.55	0.77	4,401.63
Multi-Family – Low	54.17	544.79	598.96	5.59	0.14	779.21
Multi-Family – Moderate	96.51	970.55	1,067.06	9.95	0.24	1,388.16
Neighborhood Serving Centers and Corridors – Low	38.61	388.28	426.88	3.98	0.10	555.34
Neighborhood Serving Centers and Corridors – Moderate	78.18	786.18	864.36	8.06	0.20	1,124.46
Community Commercial	19.55	196.56	216.11	2.02	0.05	281.14
Transit-Oriented Development - Low	53.21	535.09	588.30	5.49	0.13	765.33
Transit-Oriented Development - Moderate	56.22	565.37	621.59	5.80	0.14	808.64
Neo-Industrial	9.62	96.72	106.34	0.99	0.02	138.34
Industrial	5.60	56.33	61.93	0.58	0.01	80.57
Downtown	113.09	1,137.32	1,250.41	11.66	0.28	1,626.69
Waterfront	20.23	203.49	223.73	2.09	0.05	291.05
Regional Serving Facility	24.73	248.73	273.47	2.55	0.06	355.76
2040 Total	875.73	8,806.87	9,682.60	90.30	2.20	12,596.34

Water Sources
GHG Emissions, MT/Year

Apartments Mid Rise	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	0.00	1,377.47	1,377.47	0.12	0.02	1,387.52
Multi-Family – Low	0.00	243.85	243.85	0.02	0.00	245.63
Multi-Family – Moderate	0.00	434.42	434.42	0.04	0.01	437.59
Neighborhood Serving Centers and Corridors – Low	0.00	173.79	173.79	0.02	0.00	175.06
Neighborhood Serving Centers and Corridors – Moderate	0.00	351.90	351.90	0.03	0.01	354.46
Community Commercial	0.00	87.98	87.98	0.01	0.00	88.62
Transit-Oriented Development - Low	0.00	239.51	239.51	0.02	0.00	241.26
Transit-Oriented Development - Moderate	0.00	253.06	253.06	0.02	0.00	254.91
Neo-Industrial	0.00	43.29	43.29	0.00	0.00	43.61
Industrial	0.00	25.21	25.21	0.00	0.00	25.40
Downtown	0.00	509.07	509.07	0.05	0.01	512.78
Waterfront	0.00	91.08	91.08	0.01	0.00	91.75
Regional Serving Facility	0.00	111.33	111.33	0.01	0.00	112.15
2040 Total	0.00	3,941.97	3,941.97	0.36	0.07	3,970.74

Water Sources
GHG Emissions, MT/Year

Condos/Townhouse	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	0.00	0.00	0.00	0.00	0.00
Founding and Contemporary Neighborhood	128.85	1,295.77	1,424.62	13.29	0.32	1,853.32
Multi-Family – Low	22.81	229.39	252.20	2.35	0.06	328.09
Multi-Family – Moderate	40.64	408.65	449.29	4.19	0.10	584.49
Neighborhood Serving Centers and Corridors – Low	16.26	163.48	179.74	1.68	0.04	233.83
Neighborhood Serving Centers and Corridors – Moderate	32.92	331.02	363.94	3.39	0.08	473.46
Community Commercial	8.23	82.76	90.99	0.85	0.02	118.38
Transit-Oriented Development - Low	22.40	225.30	247.71	2.31	0.06	322.25
Transit-Oriented Development - Moderate	23.67	238.05	261.72	2.44	0.06	340.48
Neo-Industrial	4.05	40.73	44.77	0.42	0.01	58.25
Industrial	2.36	23.72	26.08	0.24	0.01	33.92
Downtown	47.62	478.87	526.49	4.91	0.12	684.92
Waterfront	8.52	85.68	94.20	0.88	0.02	122.55
Regional Serving Facility	10.41	104.73	115.14	1.07	0.03	149.79
2040 Total	368.73	3,708.16	4,076.89	38.02	0.93	5,303.72

Water Sources
GHG Emissions, MT/Year

City Park	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	39.46	39.46	0.02	0.02	39.61
Founding and Contemporary Neighborhood	0.00	107.00	107.00	0.05	0.05	107.39
Multi-Family – Low	0.00	1.15	1.15	0.00	0.00	1.15
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	2.15	2.15	0.00	0.00	2.16
Neighborhood Serving Centers and Corridors – Moderate	0.00	1.81	1.81	0.00	0.00	1.82
Community Commercial	0.00	1.73	1.73	0.00	0.00	1.73
Transit-Oriented Development - Low	0.00	4.16	4.16	0.00	0.00	4.17
Transit-Oriented Development - Moderate	0.00	4.09	4.09	0.00	0.00	4.11
Neo-Industrial	0.00	0.26	0.26	0.00	0.00	0.27
Industrial	0.00	2.38	2.38	0.00	0.00	2.39
Downtown	0.00	8.92	8.92	0.00	0.00	8.96
Waterfront	0.00	6.11	6.11	0.00	0.00	6.13
Regional Serving Facility	0.00	90.84	90.84	0.04	0.04	91.17
2040 Total	0.00	270.07	270.07	0.13	0.13	271.04

Water Sources
GHG Emissions, MT/Year

Golf Course	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.00	39.46	39.46	0.02	0.02	39.61
Founding and Contemporary Neighborhood	0.00	107.00	107.00	0.05	0.05	107.39
Multi-Family – Low	0.00	1.15	1.15	0.00	0.00	1.15
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.00	2.15	2.15	0.00	0.00	2.16
Neighborhood Serving Centers and Corridors – Moderate	0.00	1.81	1.81	0.00	0.00	1.82
Community Commercial	0.00	1.73	1.73	0.00	0.00	1.73
Transit-Oriented Development - Low	0.00	4.16	4.16	0.00	0.00	4.17
Transit-Oriented Development - Moderate	0.00	4.09	4.09	0.00	0.00	4.11
Neo-Industrial	0.00	0.26	0.26	0.00	0.00	0.27
Industrial	0.00	2.38	2.38	0.00	0.00	2.39
Downtown	0.00	8.92	8.92	0.00	0.00	8.96
Waterfront	0.00	6.11	6.11	0.00	0.00	6.13
Regional Serving Facility	0.00	90.84	90.84	0.04	0.04	91.17
2040 Total	0.00	270.07	270.07	0.13	0.13	271.04

Water Sources
GHG Emissions, MT/Year

Library	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	8.09	123.51	131.61	0.84	0.02	158.68
Founding and Contemporary Neighborhood	21.94	334.90	356.83	2.27	0.05	430.23
Multi-Family – Low	0.24	3.59	3.83	0.02	0.00	4.62
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.44	6.73	7.18	0.05	0.00	8.65
Neighborhood Serving Centers and Corridors – Moderate	0.37	5.67	6.04	0.04	0.00	7.29
Community Commercial	0.35	5.41	5.76	0.04	0.00	6.95
Transit-Oriented Development - Low	0.85	13.02	13.87	0.09	0.00	16.72
Transit-Oriented Development - Moderate	0.84	12.80	13.64	0.09	0.00	16.45
Neo-Industrial	0.05	0.83	0.88	0.01	0.00	1.06
Industrial	0.49	7.44	7.93	0.05	0.00	9.56
Downtown	1.83	27.93	29.76	0.19	0.00	35.88
Waterfront	1.25	19.11	20.36	0.13	0.00	24.55
Regional Serving Facility	18.63	284.31	302.94	1.93	0.04	365.25
2040 Total	55.37	845.26	900.64	5.72	0.13	1,085.89

Water Sources
GHG Emissions, MT/Year

Junior College	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	12.68	193.62	206.31	1.31	0.02	248.75
Founding and Contemporary Neighborhood	34.39	524.99	559.38	3.56	0.05	674.44
Multi-Family – Low	0.37	5.63	6.00	0.04	0.00	7.24
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	0.69	10.56	11.25	0.07	0.00	13.56
Neighborhood Serving Centers and Corridors – Moderate	0.58	8.89	9.47	0.06	0.00	11.42
Community Commercial	0.56	8.48	9.04	0.06	0.00	10.89
Transit-Oriented Development - Low	1.34	20.40	21.74	0.14	0.00	26.21
Transit-Oriented Development - Moderate	1.31	20.07	21.39	0.14	0.00	25.79
Neo-Industrial	0.08	1.30	1.38	0.01	0.00	1.67
Industrial	0.76	11.67	12.43	0.08	0.00	14.99
Downtown	2.87	43.78	46.65	0.30	0.00	56.24
Waterfront	1.96	29.95	31.92	0.20	0.00	38.48
Regional Serving Facility	29.20	445.70	474.90	3.02	0.04	572.58
2040 Total	86.80	1,325.05	1,411.86	8.98	0.13	1,702.27

Water Sources
GHG Emissions, MT/Year

General Office Building	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	1.16	11.51	12.67	0.12	0.00	16.52
Founding and Contemporary Neighborhood	20.33	202.42	222.75	2.10	0.01	290.37
Multi-Family – Low	0.03	0.27	0.30	0.00	0.00	0.39
Multi-Family – Moderate	0.02	0.16	0.18	0.00	0.00	0.23
Neighborhood Serving Centers and Corridors – Low	4.90	48.78	53.68	0.51	0.00	69.97
Neighborhood Serving Centers and Corridors – Moderate	7.68	76.44	84.12	0.79	0.00	109.65
Community Commercial	10.17	101.23	111.40	1.05	0.00	145.21
Transit-Oriented Development - Low	5.35	53.30	58.66	0.55	0.00	76.46
Transit-Oriented Development - Moderate	1.27	12.66	13.93	0.13	0.00	18.15
Neo-Industrial	0.46	4.54	4.99	0.05	0.00	6.51
Industrial	10.77	107.25	118.02	1.11	0.00	153.85
Downtown	152.02	1,513.83	1,665.85	15.68	0.06	2,171.55
Waterfront	23.37	232.70	256.07	2.41	0.01	333.81
Regional Serving Facility	61.21	609.57	670.79	6.31	0.02	874.42
2040 Total	298.72	2,974.68	3,273.41	30.81	0.12	4,267.09

Water Sources
GHG Emissions, MT/Year

Medical Office Building	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	0.82	6.21	7.02	0.08	0.00	9.73
Founding and Contemporary Neighborhood	14.35	109.09	123.44	1.48	0.01	171.06
Multi-Family – Low	0.02	0.15	0.17	0.00	0.00	0.23
Multi-Family – Moderate	0.01	0.09	0.10	0.00	0.00	0.14
Neighborhood Serving Centers and Corridors – Low	3.46	26.29	29.75	0.36	0.00	41.22
Neighborhood Serving Centers and Corridors – Moderate	5.42	41.20	46.62	0.56	0.00	64.60
Community Commercial	7.18	54.55	61.73	0.74	0.00	85.54
Transit-Oriented Development - Low	3.78	28.73	32.51	0.39	0.00	45.04
Transit-Oriented Development - Moderate	0.90	6.82	7.72	0.09	0.00	10.70
Neo-Industrial	0.32	2.45	2.77	0.03	0.00	3.83
Industrial	7.60	57.80	65.40	0.78	0.00	90.63
Downtown	107.33	815.83	923.16	11.06	0.06	1,279.26
Waterfront	16.50	125.41	141.91	1.70	0.01	196.65
Regional Serving Facility	43.22	328.51	371.73	4.45	0.02	515.12
2040 Total	210.90	1,603.11	1,814.01	21.73	0.12	2,513.75

Water Sources
GHG Emissions, MT/Year

Convenience Market	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	4.39	43.67	48.06	0.45	0.00	62.64
Founding and Contemporary Neighborhood	28.66	285.39	314.05	2.96	0.03	409.39
Multi-Family – Low	0.12	1.16	1.28	0.01	0.00	1.67
Multi-Family – Moderate	0.07	0.68	0.75	0.01	0.00	0.98
Neighborhood Serving Centers and Corridors – Low	11.65	116.03	127.68	1.20	0.01	166.44
Neighborhood Serving Centers and Corridors – Moderate	12.92	128.64	141.56	1.33	0.01	184.53
Community Commercial	26.53	264.18	290.72	2.74	0.03	378.97
Transit-Oriented Development - Low	5.59	55.68	61.27	0.58	0.01	79.87
Transit-Oriented Development - Moderate	4.01	39.93	43.94	0.41	0.00	57.28
Neo-Industrial	2.57	25.57	28.13	0.26	0.00	36.67
Industrial	1.95	19.38	21.33	0.20	0.00	27.81
Downtown	14.29	142.26	156.54	1.47	0.01	204.06
Waterfront	13.16	131.05	144.21	1.36	0.01	187.99
Regional Serving Facility	7.42	73.86	81.28	0.77	0.01	105.95
2040 Total	133.32	1,327.48	1,460.79	13.75	0.13	1,904.23

Water Sources
GHG Emissions, MT/Year

Pharmacy/Drug Store	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	4.17	41.53	45.70	0.43	0.00	59.58
Founding and Contemporary Neighborhood	27.26	271.43	298.68	2.81	0.03	389.35
Multi-Family – Low	0.11	1.11	1.22	0.01	0.00	1.59
Multi-Family – Moderate	0.07	0.65	0.71	0.01	0.00	0.93
Neighborhood Serving Centers and Corridors – Low	11.08	110.35	121.43	1.14	0.01	158.30
Neighborhood Serving Centers and Corridors – Moderate	12.29	122.34	134.63	1.27	0.01	175.50
Community Commercial	25.23	251.26	276.49	2.60	0.03	360.42
Transit-Oriented Development - Low	5.32	52.95	58.27	0.55	0.01	75.96
Transit-Oriented Development - Moderate	3.81	37.98	41.79	0.39	0.00	54.47
Neo-Industrial	2.44	24.31	26.76	0.25	0.00	34.88
Industrial	1.85	18.44	20.29	0.19	0.00	26.45
Downtown	13.59	135.29	148.88	1.40	0.01	194.08
Waterfront	12.52	124.64	137.15	1.29	0.01	178.79
Regional Serving Facility	7.05	70.25	77.30	0.73	0.01	100.76
2040 Total	126.79	1,262.52	1,389.30	13.07	0.13	1,811.04

Water Sources
GHG Emissions, MT/Year

Regional Shopping Center	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	4.39	43.67	48.06	0.45	0.00	62.64
Founding and Contemporary Neighborhood	28.66	285.39	314.05	2.96	0.03	409.39
Multi-Family – Low	0.12	1.16	1.28	0.01	0.00	1.67
Multi-Family – Moderate	0.07	0.68	0.75	0.01	0.00	0.98
Neighborhood Serving Centers and Corridors – Low	11.65	116.03	127.68	1.20	0.01	166.44
Neighborhood Serving Centers and Corridors – Moderate	12.92	128.64	141.56	1.33	0.01	184.53
Community Commercial	26.53	264.18	290.72	2.74	0.03	378.97
Transit-Oriented Development - Low	5.59	55.68	61.27	0.58	0.01	79.87
Transit-Oriented Development - Moderate	4.01	39.93	43.94	0.41	0.00	57.28
Neo-Industrial	2.57	25.57	28.13	0.26	0.00	36.67
Industrial	1.95	19.38	21.33	0.20	0.00	27.81
Downtown	14.29	142.26	156.54	1.47	0.01	204.06
Waterfront	13.16	131.05	144.21	1.36	0.01	187.99
Regional Serving Facility	7.42	73.86	81.28	0.77	0.01	105.95
2040 Total	133.32	1,327.48	1,460.79	13.75	0.13	1,904.23

Water Sources
GHG Emissions, MT/Year

Strip Mall	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	4.39	43.67	48.06	0.45	0.00	62.64
Founding and Contemporary Neighborhood	28.66	285.39	314.05	2.96	0.03	409.39
Multi-Family – Low	0.12	1.16	1.28	0.01	0.00	1.67
Multi-Family – Moderate	0.07	0.68	0.75	0.01	0.00	0.98
Neighborhood Serving Centers and Corridors – Low	11.65	116.03	127.68	1.20	0.01	166.44
Neighborhood Serving Centers and Corridors – Moderate	12.92	128.64	141.56	1.33	0.01	184.53
Community Commercial	26.53	264.18	290.72	2.74	0.03	378.97
Transit-Oriented Development - Low	5.59	55.68	61.27	0.58	0.01	79.87
Transit-Oriented Development - Moderate	4.01	39.93	43.94	0.41	0.00	57.28
Neo-Industrial	2.57	25.57	28.13	0.26	0.00	36.67
Industrial	1.95	19.38	21.33	0.20	0.00	27.81
Downtown	14.29	142.26	156.54	1.47	0.01	204.06
Waterfront	13.16	131.05	144.21	1.36	0.01	187.99
Regional Serving Facility	7.42	73.86	81.28	0.77	0.01	105.95
2040 Total	133.32	1,327.48	1,460.79	13.75	0.13	1,904.23

Water Sources
GHG Emissions, MT/Year

General Light Industrial	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	29.60	193.57	223.18	3.05	0.01	321.29
Founding and Contemporary Neighborhood	16.24	106.20	122.44	1.67	0.01	176.26
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	2.56	16.74	19.30	0.26	0.00	27.79
Neighborhood Serving Centers and Corridors – Moderate	4.30	28.11	32.41	0.44	0.00	46.65
Community Commercial	27.45	179.46	206.90	2.83	0.01	297.86
Transit-Oriented Development - Low	0.17	1.14	1.32	0.02	0.00	1.90
Transit-Oriented Development - Moderate	0.13	0.83	0.96	0.01	0.00	1.38
Neo-Industrial	36.52	238.79	275.31	3.76	0.01	396.34
Industrial	103.05	673.78	776.83	10.61	0.03	1,118.33
Downtown	1.57	10.28	11.85	0.16	0.00	17.06
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	413.93	2,706.49	3,120.42	42.63	0.13	4,492.20
2040 Total	635.52	4,155.39	4,790.91	65.45	0.20	6,897.06

Water Sources
GHG Emissions, MT/Year

Manufacturing	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	29.60	193.57	223.18	3.05	0.01	321.29
Founding and Contemporary Neighborhood	16.24	106.20	122.44	1.67	0.01	176.26
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	2.56	16.74	19.30	0.26	0.00	27.79
Neighborhood Serving Centers and Corridors – Moderate	4.30	28.11	32.41	0.44	0.00	46.65
Community Commercial	27.45	179.46	206.90	2.83	0.01	297.86
Transit-Oriented Development - Low	0.17	1.14	1.32	0.02	0.00	1.90
Transit-Oriented Development - Moderate	0.13	0.83	0.96	0.01	0.00	1.38
Neo-Industrial	36.52	238.79	275.31	3.76	0.01	396.34
Industrial	103.05	673.78	776.83	10.61	0.03	1,118.33
Downtown	1.57	10.28	11.85	0.16	0.00	17.06
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	413.93	2,706.49	3,120.42	42.63	0.13	4,492.20
2040 Total	635.52	4,155.39	4,790.91	65.45	0.20	6,897.06

Water Sources

GHG Emissions, MT/Year

Research & Development	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Open Space	62.95	411.58	474.53	6.48	0.16	683.14
Founding and Contemporary Neighborhood	34.53	225.80	260.33	3.56	0.09	374.78
Multi-Family – Low	0.00	0.00	0.00	0.00	0.00	0.00
Multi-Family – Moderate	0.00	0.00	0.00	0.00	0.00	0.00
Neighborhood Serving Centers and Corridors – Low	5.44	35.60	41.05	0.56	0.01	59.09
Neighborhood Serving Centers and Corridors – Moderate	9.14	59.76	68.90	0.94	0.02	99.20
Community Commercial	58.36	381.57	439.92	6.01	0.15	633.32
Transit-Oriented Development - Low	0.37	2.43	2.80	0.04	0.00	4.04
Transit-Oriented Development - Moderate	0.27	1.77	2.04	0.03	0.00	2.93
Neo-Industrial	77.65	507.72	585.37	8.00	0.19	842.71
Industrial	219.10	1,432.62	1,651.72	22.56	0.54	2,377.84
Downtown	3.34	21.86	25.20	0.34	0.01	36.28
Waterfront	0.00	0.00	0.00	0.00	0.00	0.00
Regional Serving Facility	880.11	5,754.66	6,634.77	90.64	2.19	9,551.51
2040 Total	1,351.27	8,835.37	10,186.64	139.16	3.36	14,664.84

Table N: Buildout Year 2040 City of Long Beach Major Areas of Change GHG Emissions Inventory

Sector	Criteria Air Pollutant Emissions (lbs/day)					
	Bio- CO_2	NBio- CO_2	Total CO_2	CH_4	N_2O	CO_2e
Existing Year 2018						
Transportation (2018 emission factors)[1]	-	-	1,369,151	107	78	1,394,808
Area, Residential, Landscaping/Consumer Products[2]	7,445	31,934	39,379	25	25	40,484
Area, Commercial + Industrial Landscaping/Consumer Products[2]	0	1	1	0	0	1
Area, Public Facilities/Institutional Landscaping/Consumer Products[2]	0	0	0	0	0	0
Energy, Residential (natural gas use)[3]	0	437,027	437,027	25	25	438,967
Energy, Commercial + Industrial (natural gas use)[3]	0	208,832	208,832	1	1	209,635
Energy, Public Facilities/Institutional (natural gas use)[3]	0	49,069	49,069	0	0	49,276
Waste, Residential (natural gas use)[4]	23,487	0	23,487	1,389	0	58,191
Waste, Commercial + Industrial (natural gas use)[4]	21,196	0	21,196	1,253	0	52,512
Waste, Public Facilities/Institutional (natural gas use)[4]	2,446	0	2,446	145	0	6,060
Water, Residential, Landscaping/Consumer Products[5]	3,237	49,338	52,575	123	25	60,441
Water, Commercial + Industrial Landscaping/Consumer Products[5]	2,645	39,801	42,446	273	3	51,291
Water, Public Facilities/Institutional Landscaping/Consumer Products[5]	137	5,217	5,354	14	0	5,823
Existing Forecast Land Uses Total	**60,593**	**821,221**	**2,250,965**	**3,356**	**158**	**2,367,487**
Future Year 2040 Existing General Plan (No Project)						
Transportation (2040 emission factors)[1]	-	-	862,923	59	49	878,821
Area, Residential, Landscaping/Consumer Products[2]	0	34,076	34,076	3	1	34,324
Area, Commercial + Industrial Landscaping/Consumer Products[2]	0	1	1	0	0	1
Area, Public Facilities/Institutional Landscaping/Consumer Products[2]	0	1	1	0	0	1
Energy, Residential (natural gas use)[3]	0	314,377	314,377	9	4	315,904
Energy, Commercial + Industrial (natural gas use)[3]	0	149,656	149,656	1	1	150,273
Energy, Public Facilities/Institutional (natural gas use)[3]	0	32,219	32,219	0	0	32,366
Waste, Residential (natural gas use)[4]	24,591	0	24,591	1,454	0	60,926
Waste, Commercial + Industrial (natural gas use)[4]	26,450	0	26,450	1,563	0	65,529
Waste, Public Facilities/Institutional (natural gas use)[4]	2,542	0	2,542	150	0	6,297
Water, Residential, Landscaping/Consumer Products[5]	2,427	27,834	30,262	251	6	38,363
Water, Commercial + Industrial Landscaping/Consumer Products[5]	3,659	26,969	30,628	377	5	42,764
Water, Public Facilities/Institutional Landscaping/Consumer Products[5]	142	2,710	2,853	15	1	3,330
Future Year 2040 Existing General Plan (No Project) Total	**59,811**	**587,843**	**1,510,578**	**3,883**	**67**	**1,628,900**
Service Population[6]	-	-	-	-	-	**666,150**
GHG Emissions per Service Population	-	-	-	-	-	**2.4**
LUE/UDE Year 2040						
Transportation (2040 emission factors)[1]	-	-	874,714	60	50	890,829
Area, Residential, Landscaping/Consumer Products[2]	0	37,075	37,075	3	1	37,345
Area, Commercial + Industrial Landscaping/Consumer Products[2]	0	1	1	0	0	1
Area, Public Facilities/Institutional Landscaping/Consumer Products[2]	0	1	1	0	0	1
Energy, Residential (natural gas use)[3]	0	334,734	334,734	10	5	336,360
Energy, Commercial + Industrial (natural gas use)[3]	0	149,656	149,656	1	1	150,273
Energy, Public Facilities/Institutional (natural gas use)[3]	0	32,219	32,219	0	0	32,366
Waste, Residential (natural gas use)[4]	25,859	0	25,859	1,529	0	64,066
Waste, Commercial + Industrial (natural gas use)[4]	26,450	0	26,450	1,563	0	65,529
Waste, Public Facilities/Institutional (natural gas use)[4]	2,542	0	2,542	150	0	6,297
Water, Residential, Landscaping/Consumer Products[5]	2,592	30,012	32,604	268	7	41,257
Water, Commercial + Industrial Landscaping/Consumer Products[5]	3,659	26,969	30,628	377	5	42,764
Water, Public Facilities/Institutional Landscaping/Consumer Products[5]	142	2,710	2,853	15	1	3,330
Future with Project Total	**61,243**	**613,376**	**1,549,334**	**3,977**	**68**	**1,670,419**
Differences in Emissions for Proposed 2040 GP LUE/UDE vs Existing 2018 GP	**650**	**-207,844**	**-701,631**	**621**	**-90**	**-697,069**
Service Population[6]	-	-	-	-	-	**666,150**
GHG Emissions per Service Population	-	-	-	-	-	**2.5**
Plan-Level Efficiency Standard	-	-	-	-	-	**2.1**
Significant?	-	-	-	-	-	
Differences in Emissions for Proposed 2040 GP LUE/UDE vs Existing GP 2040 (No Project)	**1,432**	**25,533**	**38,756**	**94**	**1**	**41,518**

Source: Compiled by LSA Associates, Inc. (2019).

Long Beach Land Use Elements - Single Family Residential

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	3.00	Dwelling Unit	0.97	5,400.00	9

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Long Beach Land Use Elements - Single Family Residential - Los Angeles-South Coast County, Annual

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Trips and VMT - No construction worker trip

On-road Fugitive Dust - No construction dust

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis.

Woodstoves - No wood stoves or fireplaces.

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblFireplaces	NumberWood	0.15	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	9.91	0.00
tblVehicleTrips	SU_TR	8.62	0.00
tblVehicleTrips	WD_TR	9.52	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Long Beach Land Use Elements - Single Family Residential - Los Angeles-South Coast County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0232	1.0400e-003	0.0406	3.0000e-005		1.7100e-003	1.7100e-003		1.7100e-003	1.7100e-003	0.2008	0.6629	0.8637	1.0000e-003	1.0000e-005	0.8920
Energy	4.4000e-004	3.8000e-003	1.6200e-003	2.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	12.2445	12.2445	4.1000e-004	1.5000e-004	12.2987
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	0.7490	0.0000	0.7490	0.0443	0.0000	1.8557
Water						0.0000	0.0000		0.0000	0.0000	0.0620	1.2471	1.3091	6.4200e-003	1.6000e-004	1.5177
Total	**0.0237**	**4.8400e-003**	**0.0422**	**5.0000e-005**	**0.0000**	**2.0200e-003**	**2.0200e-003**	**0.0000**	**2.0200e-003**	**2.0200e-003**	**1.0118**	**14.1545**	**15.1663**	**0.0521**	**3.2000e-004**	**16.5640**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0222	8.9000e-004	0.0314	1.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	0.6629	0.6629	6.0000e-005	1.0000e-005	0.6678
Energy	4.4000e-004	3.8000e-003	1.6200e-003	2.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	12.2445	12.2445	4.1000e-004	1.5000e-004	12.2987
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	0.7490	0.0000	0.7490	0.0443	0.0000	1.8557
Water						0.0000	0.0000		0.0000	0.0000	0.0620	1.2471	1.3091	6.4200e-003	1.6000e-004	1.5177
Total	**0.0227**	**4.6900e-003**	**0.0330**	**3.0000e-005**	**0.0000**	**5.2000e-004**	**5.2000e-004**	**0.0000**	**5.2000e-004**	**5.2000e-004**	**0.8111**	**14.1545**	**14.9655**	**0.0512**	**3.2000e-004**	**16.3398**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**4.31**	**3.10**	**21.78**	**40.00**	**0.00**	**74.26**	**74.26**	**0.00**	**74.26**	**74.26**	**19.84**	**0.00**	**1.32**	**1.80**	**0.00**	**1.35**

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	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	7.8460	7.8460	3.2000e-004	7.0000e-005	7.8741
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	7.8460	7.8460	3.2000e-004	7.0000e-005	7.8741
NaturalGas Mitigated	4.4000e-004	3.8000e-003	1.6200e-003	2.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	4.3985	4.3985	8.0000e-005	8.0000e-005	4.4246
NaturalGas Unmitigated	4.4000e-004	3.8000e-003	1.6200e-003	2.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	4.3985	4.3985	8.0000e-005	8.0000e-005	4.4246

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					
Single Family Housing	82423.8	4.4000e-004	3.8000e-003	1.6200e-003	2.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	4.3985	4.3985	8.0000e-005	8.0000e-005	4.4246
Total		**4.4000e-004**	**3.8000e-003**	**1.6200e-003**	**2.0000e-005**		**3.1000e-004**	**3.1000e-004**		**3.1000e-004**	**3.1000e-004**	**0.0000**	**4.3985**	**4.3985**	**8.0000e-005**	**8.0000e-005**	**4.4246**

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					
Single Family Housing	82423.8	4.4000e-004	3.8000e-003	1.6200e-003	2.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	4.3985	4.3985	8.0000e-005	8.0000e-005	4.4246
Total		**4.4000e-004**	**3.8000e-003**	**1.6200e-003**	**2.0000e-005**		**3.1000e-004**	**3.1000e-004**		**3.1000e-004**	**3.1000e-004**	**0.0000**	**4.3985**	**4.3985**	**8.0000e-005**	**8.0000e-005**	**4.4246**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	24624.9	7.8460	3.2000e-004	7.0000e-005	7.8741
Total		**7.8460**	**3.2000e-004**	**7.0000e-005**	**7.8741**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	24624.9	7.8460	3.2000e-004	7.0000e-005	7.8741
Total		**7.8460**	**3.2000e-004**	**7.0000e-005**	**7.8741**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0222	8.9000e-004	0.0314	1.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	0.6629	0.6629	6.0000e-005	1.0000e-005	0.6678
Unmitigated	0.0232	1.0400e-003	0.0406	3.0000e-005		1.7100e-003	1.7100e-003		1.7100e-003	1.7100e-003	0.2008	0.6629	0.8637	1.0000e-003	1.0000e-005	0.8920

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	1.6900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0195					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.0700e-003	6.8000e-004	9.4200e-003	3.0000e-005		1.5400e-003	1.5400e-003		1.5400e-003	1.5400e-003	0.2008	0.6124	0.8131	9.5000e-004	1.0000e-005	0.8402
Landscaping	9.6000e-004	3.6000e-004	0.0312	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.0505	0.0505	5.0000e-005	0.0000	0.0518
Total	**0.0232**	**1.0400e-003**	**0.0406**	**3.0000e-005**		**1.7100e-003**	**1.7100e-003**		**1.7100e-003**	**1.7100e-003**	**0.2008**	**0.6629**	**0.8637**	**1.0000e-003**	**1.0000e-005**	**0.8920**

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	1.6900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0195					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.0000e-005	5.3000e-004	2.3000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.6124	0.6124	1.0000e-005	1.0000e-005	0.6160
Landscaping	9.6000e-004	3.6000e-004	0.0312	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.0505	0.0505	5.0000e-005	0.0000	0.0518
Total	**0.0222**	**8.9000e-004**	**0.0314**	**0.0000**		**2.1000e-004**	**2.1000e-004**		**2.1000e-004**	**2.1000e-004**	**0.0000**	**0.6629**	**0.6629**	**6.0000e-005**	**1.0000e-005**	**0.6678**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.3091	6.4200e-003	1.6000e-004	1.5177
Unmitigated	1.3091	6.4200e-003	1.6000e-004	1.5177

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.195462 / 0.123226	1.3091	6.4200e-003	1.6000e-004	1.5177
Total		**1.3091**	**6.4200e-003**	**1.6000e-004**	**1.5177**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.195462 / 0.123226	1.3091	6.4200e-003	1.6000e-004	1.5177
Total		**1.3091**	**6.4200e-003**	**1.6000e-004**	**1.5177**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.7490	0.0443	0.0000	1.8557
Unmitigated	0.7490	0.0443	0.0000	1.8557

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	3.69	0.7490	0.0443	0.0000	1.8557
Total		**0.7490**	**0.0443**	**0.0000**	**1.8557**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	3.69	0.7490	0.0443	0.0000	1.8557
Total		**0.7490**	**0.0443**	**0.0000**	**1.8557**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Single Family Residential

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	3.00	Dwelling Unit	0.97	5,400.00	9

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Long Beach Land Use Elements - Single Family Residential - Los Angeles-South Coast County, Summer

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Trips and VMT - No construction worker trip

On-road Fugitive Dust - No construction dust

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis.

Woodstoves - No wood stoves or fireplaces.

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblFireplaces	NumberWood	0.15	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	9.91	0.00
tblVehicleTrips	SU_TR	8.62	0.00
tblVehicleTrips	WD_TR	9.52	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2098	0.0572	1.0026	2.6800e-003		0.1247	0.1247		0.1247	0.1247	17.7049	54.4457	72.1506	0.0842	9.9000e-004	74.5517
Energy	2.4400e-003	0.0208	8.8600e-003	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5669	26.5669	5.1000e-004	4.9000e-004	26.7248
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
Total	**0.2122**	**0.0780**	**1.0114**	**2.8100e-003**	**0.0000**	**0.1264**	**0.1264**	**0.0000**	**0.1264**	**0.1264**	**17.7049**	**81.0126**	**98.7175**	**0.0848**	**1.4800e-003**	**101.2764**

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	0.1288	0.0452	0.2673	2.8000e-004		4.7800e-003	4.7800e-003		4.7800e-003	4.7800e-003	0.0000	54.4457	54.4457	1.4800e-003	9.9000e-004	54.7776
Energy	2.4400e-003	0.0208	8.8600e-003	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5669	26.5669	5.1000e-004	4.9000e-004	26.7248
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
Total	**0.1313**	**0.0660**	**0.2761**	**4.1000e-004**	**0.0000**	**6.4600e-003**	**6.4600e-003**	**0.0000**	**6.4600e-003**	**6.4600e-003**	**0.0000**	**81.0126**	**81.0126**	**1.9900e-003**	**1.4800e-003**	**81.5024**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**38.15**	**15.38**	**72.70**	**85.41**	**0.00**	**94.89**	**94.89**	**0.00**	**94.89**	**94.89**	**100.00**	**0.00**	**17.93**	**97.65**	**0.00**	**19.52**

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	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

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	2.4400e-003	0.0208	8.8600e-003	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5669	26.5669	5.1000e-004	4.9000e-004	26.7248
NaturalGas Unmitigated	2.4400e-003	0.0208	8.8600e-003	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5669	26.5669	5.1000e-004	4.9000e-004	26.7248

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					
Single Family Housing	225.819	2.4400e-003	0.0208	8.8600e-003	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5669	26.5669	5.1000e-004	4.9000e-004	26.7248
Total		**2.4400e-003**	**0.0208**	**8.8600e-003**	**1.3000e-004**		**1.6800e-003**	**1.6800e-003**		**1.6800e-003**	**1.6800e-003**		**26.5669**	**26.5669**	**5.1000e-004**	**4.9000e-004**	**26.7248**

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					
Single Family Housing	0.225819	2.4400e-003	0.0208	8.8600e-003	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5669	26.5669	5.1000e-004	4.9000e-004	26.7248
Total		**2.4400e-003**	**0.0208**	**8.8600e-003**	**1.3000e-004**		**1.6800e-003**	**1.6800e-003**		**1.6800e-003**	**1.6800e-003**		**26.5669**	**26.5669**	**5.1000e-004**	**4.9000e-004**	**26.7248**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1288	0.0452	0.2673	2.8000e-004		4.7800e-003	4.7800e-003		4.7800e-003	4.7800e-003	0.0000	54.4457	54.4457	1.4800e-003	9.9000e-004	54.7776
Unmitigated	0.2098	0.0572	1.0026	2.6800e-003		0.1247	0.1247		0.1247	0.1247	17.7049	54.4457	72.1506	0.0842	9.9000e-004	74.5517

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	9.2600e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1069					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0859	0.0543	0.7533	2.6700e-003		0.1234	0.1234		0.1234	0.1234	17.7049	54.0000	71.7049	0.0838	9.9000e-004	74.0950
Landscaping	7.6800e-003	2.8900e-003	0.2493	1.0000e-005		1.3600e-003	1.3600e-003		1.3600e-003	1.3600e-003		0.4457	0.4457	4.4000e-004		0.4567
Total	**0.2098**	**0.0572**	**1.0026**	**2.6800e-003**		**0.1247**	**0.1247**		**0.1247**	**0.1247**	**17.7049**	**54.4457**	**72.1506**	**0.0842**	**9.9000e-004**	**74.5517**

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	9.2600e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1069					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	4.9500e-003	0.0423	0.0180	2.7000e-004		3.4200e-003	3.4200e-003		3.4200e-003	3.4200e-003	0.0000	54.0000	54.0000	1.0300e-003	9.9000e-004	54.3209
Landscaping	7.6800e-003	2.8900e-003	0.2493	1.0000e-005		1.3600e-003	1.3600e-003		1.3600e-003	1.3600e-003		0.4457	0.4457	4.4000e-004		0.4567
Total	**0.1288**	**0.0452**	**0.2673**	**2.8000e-004**		**4.7800e-003**	**4.7800e-003**		**4.7800e-003**	**4.7800e-003**	**0.0000**	**54.4457**	**54.4457**	**1.4700e-003**	**9.9000e-004**	**54.7776**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Single Family Residential

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	3.00	Dwelling Unit	0.97	5,400.00	9

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Long Beach Land Use Elements - Single Family Residential - Los Angeles-South Coast County, Winter

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Trips and VMT - No construction worker trip

On-road Fugitive Dust - No construction dust

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis.

Woodstoves - No wood stoves or fireplaces.

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblFireplaces	NumberWood	0.15	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	9.91	0.00
tblVehicleTrips	SU_TR	8.62	0.00
tblVehicleTrips	WD_TR	9.52	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2098	0.0572	1.0026	2.6800e-003		0.1247	0.1247		0.1247	0.1247	17.7049	54.4457	72.1506	0.0842	9.9000e-004	74.5517
Energy	2.4400e-003	0.0208	8.8600e-003	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5669	26.5669	5.1000e-004	4.9000e-004	26.7248
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
Total	**0.2122**	**0.0780**	**1.0114**	**2.8100e-003**	**0.0000**	**0.1264**	**0.1264**	**0.0000**	**0.1264**	**0.1264**	**17.7049**	**81.0126**	**98.7175**	**0.0848**	**1.4800e-003**	**101.2764**

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	0.1288	0.0452	0.2673	2.8000e-004		4.7800e-003	4.7800e-003		4.7800e-003	4.7800e-003	0.0000	54.4457	54.4457	1.4800e-003	9.9000e-004	54.7776
Energy	2.4400e-003	0.0208	8.8600e-003	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5669	26.5669	5.1000e-004	4.9000e-004	26.7248
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
Total	**0.1313**	**0.0660**	**0.2761**	**4.1000e-004**	**0.0000**	**6.4600e-003**	**6.4600e-003**	**0.0000**	**6.4600e-003**	**6.4600e-003**	**0.0000**	**81.0126**	**81.0126**	**1.9900e-003**	**1.4800e-003**	**81.5024**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**38.15**	**15.38**	**72.70**	**85.41**	**0.00**	**94.89**	**94.89**	**0.00**	**94.89**	**94.89**	**100.00**	**0.00**	**17.93**	**97.65**	**0.00**	**19.52**

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	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

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	2.4400e-003	0.0208	8.8600e-003	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5669	26.5669	5.1000e-004	4.9000e-004	26.7248
NaturalGas Unmitigated	2.4400e-003	0.0208	8.8600e-003	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5669	26.5669	5.1000e-004	4.9000e-004	26.7248

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					
Single Family Housing	225.819	2.4400e-003	0.0208	8.8600e-003	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5669	26.5669	5.1000e-004	4.9000e-004	26.7248
Total		**2.4400e-003**	**0.0208**	**8.8600e-003**	**1.3000e-004**		**1.6800e-003**	**1.6800e-003**		**1.6800e-003**	**1.6800e-003**		**26.5669**	**26.5669**	**5.1000e-004**	**4.9000e-004**	**26.7248**

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					
Single Family Housing	0.225819	2.4400e-003	0.0208	8.8600e-003	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5669	26.5669	5.1000e-004	4.9000e-004	26.7248
Total		**2.4400e-003**	**0.0208**	**8.8600e-003**	**1.3000e-004**		**1.6800e-003**	**1.6800e-003**		**1.6800e-003**	**1.6800e-003**		**26.5669**	**26.5669**	**5.1000e-004**	**4.9000e-004**	**26.7248**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1288	0.0452	0.2673	2.8000e-004		4.7800e-003	4.7800e-003		4.7800e-003	4.7800e-003	0.0000	54.4457	54.4457	1.4800e-003	9.9000e-004	54.7776
Unmitigated	0.2098	0.0572	1.0026	2.6800e-003		0.1247	0.1247		0.1247	0.1247	17.7049	54.4457	72.1506	0.0842	9.9000e-004	74.5517

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	9.2600e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1069					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0859	0.0543	0.7533	2.6700e-003		0.1234	0.1234		0.1234	0.1234	17.7049	54.0000	71.7049	0.0838	9.9000e-004	74.0950
Landscaping	7.6800e-003	2.8900e-003	0.2493	1.0000e-005		1.3600e-003	1.3600e-003		1.3600e-003	1.3600e-003		0.4457	0.4457	4.4000e-004		0.4567
Total	**0.2098**	**0.0572**	**1.0026**	**2.6800e-003**		**0.1247**	**0.1247**		**0.1247**	**0.1247**	**17.7049**	**54.4457**	**72.1506**	**0.0842**	**9.9000e-004**	**74.5517**

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	9.2600e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1069					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	4.9500e-003	0.0423	0.0180	2.7000e-004		3.4200e-003	3.4200e-003		3.4200e-003	3.4200e-003	0.0000	54.0000	54.0000	1.0300e-003	9.9000e-004	54.3209
Landscaping	7.6800e-003	2.8900e-003	0.2493	1.0000e-005		1.3600e-003	1.3600e-003		1.3600e-003	1.3600e-003		0.4457	0.4457	4.4000e-004		0.4567
Total	**0.1288**	**0.0452**	**0.2673**	**2.8000e-004**		**4.7800e-003**	**4.7800e-003**		**4.7800e-003**	**4.7800e-003**	**0.0000**	**54.4457**	**54.4457**	**1.4700e-003**	**9.9000e-004**	**54.7776**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Low Rise Apts

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	16.00	Dwelling Unit	1.00	16,000.00	46

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Trips and VMT - No construction worker trip

On-road Fugitive Dust - No construction dust

Vehicle Trips - No CalEEmod vehicle emissions, refer to separate VMT emission analysis.

Woodstoves - No wood stoves or fireplaces

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblFireplaces	NumberWood	0.80	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	WD_TR	6.59	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0737	5.5500e-003	0.2164	1.9000e-004		9.1300e-003	9.1300e-003		9.1300e-003	9.1300e-003	1.0708	3.5354	4.6062	5.3400e-003	6.0000e-005	4.7574
Energy	1.4100e-003	0.0121	5.1300e-003	8.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004	0.0000	35.5685	35.5685	1.1600e-003	4.4000e-004	35.7287
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	1.4940	0.0000	1.4940	0.0883	0.0000	3.7014
Water						0.0000	0.0000		0.0000	0.0000	0.3307	6.6514	6.9821	0.0342	8.6000e-004	8.0941
Total	**0.0751**	**0.0176**	**0.2215**	**2.7000e-004**	**0.0000**	**0.0101**	**0.0101**	**0.0000**	**0.0101**	**0.0101**	**2.8955**	**45.7553**	**48.6508**	**0.1290**	**1.3600e-003**	**52.2816**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0683	4.7500e-003	0.1674	3.0000e-005		1.1300e-003	1.1300e-003		1.1300e-003	1.1300e-003	0.0000	3.5354	3.5354	3.3000e-004	6.0000e-005	3.5615
Energy	1.4100e-003	0.0121	5.1300e-003	8.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004	0.0000	35.5685	35.5685	1.1600e-003	4.4000e-004	35.7287
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	1.4940	0.0000	1.4940	0.0883	0.0000	3.7014
Water						0.0000	0.0000		0.0000	0.0000	0.3307	6.6514	6.9821	0.0342	8.6000e-004	8.0941
Total	**0.0697**	**0.0168**	**0.1725**	**1.1000e-004**	**0.0000**	**2.1000e-003**	**2.1000e-003**	**0.0000**	**2.1000e-003**	**2.1000e-003**	**1.8247**	**45.7553**	**47.5800**	**0.1240**	**1.3600e-003**	**51.0857**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**7.19**	**4.55**	**22.13**	**59.26**	**0.00**	**79.21**	**79.21**	**0.00**	**79.21**	**79.21**	**36.98**	**0.00**	**2.20**	**3.88**	**0.00**	**2.29**

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	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	21.6173	21.6173	8.9000e-004	1.8000e-004	21.6946
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	21.6173	21.6173	8.9000e-004	1.8000e-004	21.6946
NaturalGas Mitigated	1.4100e-003	0.0121	5.1300e-003	8.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004	0.0000	13.9512	13.9512	2.7000e-004	2.6000e-004	14.0341
NaturalGas Unmitigated	1.4100e-003	0.0121	5.1300e-003	8.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004	0.0000	13.9512	13.9512	2.7000e-004	2.6000e-004	14.0341

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					
Apartments Low Rise	261436	1.4100e-003	0.0121	5.1300e-003	8.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004	0.0000	13.9512	13.9512	2.7000e-004	2.6000e-004	14.0341
Total		**1.4100e-003**	**0.0121**	**5.1300e-003**	**8.0000e-005**		**9.7000e-004**	**9.7000e-004**		**9.7000e-004**	**9.7000e-004**	**0.0000**	**13.9512**	**13.9512**	**2.7000e-004**	**2.6000e-004**	**14.0341**

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					
Apartments Low Rise	261436	1.4100e-003	0.0121	5.1300e-003	8.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004	0.0000	13.9512	13.9512	2.7000e-004	2.6000e-004	14.0341
Total		**1.4100e-003**	**0.0121**	**5.1300e-003**	**8.0000e-005**		**9.7000e-004**	**9.7000e-004**		**9.7000e-004**	**9.7000e-004**	**0.0000**	**13.9512**	**13.9512**	**2.7000e-004**	**2.6000e-004**	**14.0341**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	67846.2	21.6173	8.9000e-004	1.8000e-004	21.6946
Total		**21.6173**	**8.9000e-004**	**1.8000e-004**	**21.6946**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	67846.2	21.6173	8.9000e-004	1.8000e-004	21.6946
Total		**21.6173**	**8.9000e-004**	**1.8000e-004**	**21.6946**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0683	4.7500e-003	0.1674	3.0000e-005		1.1300e-003	1.1300e-003		1.1300e-003	1.1300e-003	0.0000	3.5354	3.5354	3.3000e-004	6.0000e-005	3.5615
Unmitigated	0.0737	5.5500e-003	0.2164	1.9000e-004		9.1300e-003	9.1300e-003		9.1300e-003	9.1300e-003	1.0708	3.5354	4.6062	5.3400e-003	6.0000e-005	4.7574

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	5.0100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0578					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	5.7300e-003	3.6200e-003	0.0502	1.8000e-004		8.2200e-003	8.2200e-003		8.2200e-003	8.2200e-003	1.0708	3.2659	4.3366	5.0700e-003	6.0000e-005	4.4812
Landscaping	5.1200e-003	1.9300e-003	0.1662	1.0000e-005		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004	0.0000	0.2695	0.2695	2.7000e-004	0.0000	0.2762
Total	**0.0737**	**5.5500e-003**	**0.2164**	**1.9000e-004**		**9.1300e-003**	**9.1300e-003**		**9.1300e-003**	**9.1300e-003**	**1.0708**	**3.5354**	**4.6062**	**5.3400e-003**	**6.0000e-005**	**4.7574**

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	5.0100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0578					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.3000e-004	2.8200e-003	1.2000e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	3.2659	3.2659	6.0000e-005	6.0000e-005	3.2853
Landscaping	5.1200e-003	1.9300e-003	0.1662	1.0000e-005		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004	0.0000	0.2695	0.2695	2.7000e-004	0.0000	0.2762
Total	**0.0683**	**4.7500e-003**	**0.1674**	**3.0000e-005**		**1.1400e-003**	**1.1400e-003**		**1.1400e-003**	**1.1400e-003**	**0.0000**	**3.5354**	**3.5354**	**3.3000e-004**	**6.0000e-005**	**3.5615**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	6.9821	0.0342	8.6000e-004	8.0941
Unmitigated	6.9821	0.0342	8.6000e-004	8.0941

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.04246 / 0.657206	6.9821	0.0342	8.6000e-004	8.0941
Total		**6.9821**	**0.0342**	**8.6000e-004**	**8.0941**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.04246 / 0.657206	6.9821	0.0342	8.6000e-004	8.0941
Total		**6.9821**	**0.0342**	**8.6000e-004**	**8.0941**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.4940	0.0883	0.0000	3.7014
Unmitigated	1.4940	0.0883	0.0000	3.7014

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	7.36	1.4940	0.0883	0.0000	3.7014
Total		**1.4940**	**0.0883**	**0.0000**	**3.7014**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	7.36	1.4940	0.0883	0.0000	3.7014
Total		**1.4940**	**0.0883**	**0.0000**	**3.7014**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Low Rise Apts

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	16.00	Dwelling Unit	1.00	16,000.00	46

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Long Beach Land Use Elements - Low Rise Apts - Los Angeles-South Coast County, Summer

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Trips and VMT - No construction worker trip

On-road Fugitive Dust - No construction dust

Vehicle Trips - No CalEEmod vehicle emissions, refer to separate VMT emission analysis.

Woodstoves - No wood stoves or fireplaces

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblFireplaces	NumberWood	0.80	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	WD_TR	6.59	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.8434	0.3050	5.3470	0.0143		0.6652	0.6652		0.6652	0.6652	94.4262	290.3768	384.8031	0.4493	5.2800e-003	397.6090
Energy	7.7200e-003	0.0660	0.0281	4.2000e-004		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003		84.2663	84.2663	1.6200e-003	1.5400e-003	84.7671
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
Total	**0.8512**	**0.3710**	**5.3751**	**0.0147**	**0.0000**	**0.6706**	**0.6706**	**0.0000**	**0.6706**	**0.6706**	**94.4262**	**374.6432**	**469.0694**	**0.4509**	**6.8200e-003**	**482.3761**

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	0.4116	0.2410	1.4254	1.5100e-003		0.0255	0.0255		0.0255	0.0255	0.0000	290.3768	290.3768	7.8800e-003	5.2800e-003	292.1472
Energy	7.7200e-003	0.0660	0.0281	4.2000e-004		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003		84.2663	84.2663	1.6200e-003	1.5400e-003	84.7671
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
Total	**0.4193**	**0.3070**	**1.4535**	**1.9300e-003**	**0.0000**	**0.0308**	**0.0308**	**0.0000**	**0.0308**	**0.0308**	**0.0000**	**374.6432**	**374.6432**	**9.5000e-003**	**6.8200e-003**	**376.9143**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**50.73**	**17.24**	**72.96**	**86.89**	**0.00**	**95.40**	**95.40**	**0.00**	**95.40**	**95.40**	**100.00**	**0.00**	**20.13**	**97.89**	**0.00**	**21.86**

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	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

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	7.7200e-003	0.0660	0.0281	4.2000e-004		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003		84.2663	84.2663	1.6200e-003	1.5400e-003	84.7671
NaturalGas Unmitigated	7.7200e-003	0.0660	0.0281	4.2000e-004		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003		84.2663	84.2663	1.6200e-003	1.5400e-003	84.7671

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					
Apartments Low Rise	716.264	7.7200e-003	0.0660	0.0281	4.2000e-004		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003		84.2663	84.2663	1.6200e-003	1.5400e-003	84.7671
Total		**7.7200e-003**	**0.0660**	**0.0281**	**4.2000e-004**		**5.3400e-003**	**5.3400e-003**		**5.3400e-003**	**5.3400e-003**		**84.2663**	**84.2663**	**1.6200e-003**	**1.5400e-003**	**84.7671**

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					
Apartments Low Rise	0.716264	7.7200e-003	0.0660	0.0281	4.2000e-004		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003		84.2663	84.2663	1.6200e-003	1.5400e-003	84.7671
Total		**7.7200e-003**	**0.0660**	**0.0281**	**4.2000e-004**		**5.3400e-003**	**5.3400e-003**		**5.3400e-003**	**5.3400e-003**		**84.2663**	**84.2663**	**1.6200e-003**	**1.5400e-003**	**84.7671**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4116	0.2410	1.4254	1.5100e-003		0.0255	0.0255		0.0255	0.0255	0.0000	290.3768	290.3768	7.8800e-003	5.2800e-003	292.1472
Unmitigated	0.8434	0.3050	5.3470	0.0143		0.6652	0.6652		0.6652	0.6652	94.4262	290.3768	384.8031	0.4493	5.2800e-003	397.6090

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	0.0274					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3168					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4582	0.2896	4.0176	0.0142		0.6580	0.6580		0.6580	0.6580	94.4262	288.0000	382.4262	0.4469	5.2800e-003	395.1732
Landscaping	0.0410	0.0154	1.3294	7.0000e-005		7.2600e-003	7.2600e-003		7.2600e-003	7.2600e-003		2.3768	2.3768	2.3600e-003		2.4357
Total	**0.8434**	**0.3050**	**5.3470**	**0.0143**		**0.6652**	**0.6652**		**0.6652**	**0.6652**	**94.4262**	**290.3768**	**384.8031**	**0.4493**	**5.2800e-003**	**397.6090**

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	0.0274					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3168					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0264	0.2256	0.0960	1.4400e-003		0.0182	0.0182		0.0182	0.0182	0.0000	288.0000	288.0000	5.5200e-003	5.2800e-003	289.7114
Landscaping	0.0410	0.0154	1.3294	7.0000e-005		7.2600e-003	7.2600e-003		7.2600e-003	7.2600e-003		2.3768	2.3768	2.3600e-003		2.4357
Total	**0.4116**	**0.2410**	**1.4254**	**1.5100e-003**		**0.0255**	**0.0255**		**0.0255**	**0.0255**	**0.0000**	**290.3768**	**290.3768**	**7.8800e-003**	**5.2800e-003**	**292.1472**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Low Rise Apts

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	16.00	Dwelling Unit	1.00	16,000.00	46

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Trips and VMT - No construction worker trip

On-road Fugitive Dust - No construction dust

Vehicle Trips - No CalEEmod vehicle emissions, refer to separate VMT emission analysis.

Woodstoves - No wood stoves or fireplaces

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblFireplaces	NumberWood	0.80	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	WD_TR	6.59	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.8434	0.3050	5.3470	0.0143		0.6652	0.6652		0.6652	0.6652	94.4262	290.3768	384.8031	0.4493	5.2800e-003	397.6090
Energy	7.7200e-003	0.0660	0.0281	4.2000e-004		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003		84.2663	84.2663	1.6200e-003	1.5400e-003	84.7671
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
Total	**0.8512**	**0.3710**	**5.3751**	**0.0147**	**0.0000**	**0.6706**	**0.6706**	**0.0000**	**0.6706**	**0.6706**	**94.4262**	**374.6432**	**469.0694**	**0.4509**	**6.8200e-003**	**482.3761**

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	0.4116	0.2410	1.4254	1.5100e-003		0.0255	0.0255		0.0255	0.0255	0.0000	290.3768	290.3768	7.8800e-003	5.2800e-003	292.1472
Energy	7.7200e-003	0.0660	0.0281	4.2000e-004		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003		84.2663	84.2663	1.6200e-003	1.5400e-003	84.7671
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
Total	**0.4193**	**0.3070**	**1.4535**	**1.9300e-003**	**0.0000**	**0.0308**	**0.0308**	**0.0000**	**0.0308**	**0.0308**	**0.0000**	**374.6432**	**374.6432**	**9.5000e-003**	**6.8200e-003**	**376.9143**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**50.73**	**17.24**	**72.96**	**86.89**	**0.00**	**95.40**	**95.40**	**0.00**	**95.40**	**95.40**	**100.00**	**0.00**	**20.13**	**97.89**	**0.00**	**21.86**

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	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

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	7.7200e-003	0.0660	0.0281	4.2000e-004		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003		84.2663	84.2663	1.6200e-003	1.5400e-003	84.7671
NaturalGas Unmitigated	7.7200e-003	0.0660	0.0281	4.2000e-004		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003		84.2663	84.2663	1.6200e-003	1.5400e-003	84.7671

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					
Apartments Low Rise	716.264	7.7200e-003	0.0660	0.0281	4.2000e-004		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003		84.2663	84.2663	1.6200e-003	1.5400e-003	84.7671
Total		**7.7200e-003**	**0.0660**	**0.0281**	**4.2000e-004**		**5.3400e-003**	**5.3400e-003**		**5.3400e-003**	**5.3400e-003**		**84.2663**	**84.2663**	**1.6200e-003**	**1.5400e-003**	**84.7671**

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					
Apartments Low Rise	0.716264	7.7200e-003	0.0660	0.0281	4.2000e-004		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003		84.2663	84.2663	1.6200e-003	1.5400e-003	84.7671
Total		**7.7200e-003**	**0.0660**	**0.0281**	**4.2000e-004**		**5.3400e-003**	**5.3400e-003**		**5.3400e-003**	**5.3400e-003**		**84.2663**	**84.2663**	**1.6200e-003**	**1.5400e-003**	**84.7671**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4116	0.2410	1.4254	1.5100e-003		0.0255	0.0255		0.0255	0.0255	0.0000	290.3768	290.3768	7.8800e-003	5.2800e-003	292.1472
Unmitigated	0.8434	0.3050	5.3470	0.0143		0.6652	0.6652		0.6652	0.6652	94.4262	290.3768	384.8031	0.4493	5.2800e-003	397.6090

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	0.0274					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3168					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4582	0.2896	4.0176	0.0142		0.6580	0.6580		0.6580	0.6580	94.4262	288.0000	382.4262	0.4469	5.2800e-003	395.1732
Landscaping	0.0410	0.0154	1.3294	7.0000e-005		7.2600e-003	7.2600e-003		7.2600e-003	7.2600e-003		2.3768	2.3768	2.3600e-003		2.4357
Total	**0.8434**	**0.3050**	**5.3470**	**0.0143**		**0.6652**	**0.6652**		**0.6652**	**0.6652**	**94.4262**	**290.3768**	**384.8031**	**0.4493**	**5.2800e-003**	**397.6090**

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	0.0274					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3168					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0264	0.2256	0.0960	1.4400e-003		0.0182	0.0182		0.0182	0.0182	0.0000	288.0000	288.0000	5.5200e-003	5.2800e-003	289.7114
Landscaping	0.0410	0.0154	1.3294	7.0000e-005		7.2600e-003	7.2600e-003		7.2600e-003	7.2600e-003		2.3768	2.3768	2.3600e-003		2.4357
Total	**0.4116**	**0.2410**	**1.4254**	**1.5100e-003**		**0.0255**	**0.0255**		**0.0255**	**0.0255**	**0.0000**	**290.3768**	**290.3768**	**7.8800e-003**	**5.2800e-003**	**292.1472**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Mid Rise Apts

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	38.00	Dwelling Unit	1.00	38,000.00	109

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Trips and VMT - no construction worker trips

On-road Fugitive Dust - No construction dust emissions

Vehicle Trips - No CalEEMod vehicle emission analysis, use separate VMT emission analysis.

Woodstoves - No wood stoves or fireplaces.

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblFireplaces	NumberWood	1.90	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	WD_TR	6.65	0.00
tblWoodstoves	NumberCatalytic	1.90	0.00
tblWoodstoves	NumberNoncatalytic	1.90	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1622	0.0113	0.3975	6.0000e-005		2.7000e-003	2.7000e-003		2.7000e-003	2.7000e-003	0.0000	8.3966	8.3966	7.8000e-004	1.4000e-004	8.4585
Energy	2.7400e-003	0.0235	9.9800e-003	1.5000e-004		1.9000e-003	1.9000e-003		1.9000e-003	1.9000e-003	0.0000	76.1788	76.1788	2.5400e-003	9.2000e-004	76.5155
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	3.5483	0.0000	3.5483	0.2097	0.0000	8.7907
Water						0.0000	0.0000		0.0000	0.0000	0.7855	15.7970	16.5825	0.0813	2.0400e-003	19.2236
Total	**0.1649**	**0.0347**	**0.4075**	**2.1000e-004**	**0.0000**	**4.6000e-003**	**4.6000e-003**	**0.0000**	**4.6000e-003**	**4.6000e-003**	**4.3338**	**100.3723**	**104.7061**	**0.2944**	**3.1000e-003**	**112.9883**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1622	0.0113	0.3975	6.0000e-005		2.7000e-003	2.7000e-003		2.7000e-003	2.7000e-003	0.0000	8.3966	8.3966	7.8000e-004	1.4000e-004	8.4585
Energy	2.7400e-003	0.0235	9.9800e-003	1.5000e-004		1.9000e-003	1.9000e-003		1.9000e-003	1.9000e-003	0.0000	76.1788	76.1788	2.5400e-003	9.2000e-004	76.5155
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	3.5483	0.0000	3.5483	0.2097	0.0000	8.7907
Water						0.0000	0.0000		0.0000	0.0000	0.7855	15.7970	16.5825	0.0813	2.0400e-003	19.2236
Total	**0.1649**	**0.0347**	**0.4075**	**2.1000e-004**	**0.0000**	**4.6000e-003**	**4.6000e-003**	**0.0000**	**4.6000e-003**	**4.6000e-003**	**4.3338**	**100.3723**	**104.7061**	**0.2944**	**3.1000e-003**	**112.9883**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	49.0137	49.0137	2.0200e-003	4.2000e-004	49.1890
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	49.0137	49.0137	2.0200e-003	4.2000e-004	49.1890
NaturalGas Mitigated	2.7400e-003	0.0235	9.9800e-003	1.5000e-004		1.9000e-003	1.9000e-003		1.9000e-003	1.9000e-003	0.0000	27.1651	27.1651	5.2000e-004	5.0000e-004	27.3265
NaturalGas Unmitigated	2.7400e-003	0.0235	9.9800e-003	1.5000e-004		1.9000e-003	1.9000e-003		1.9000e-003	1.9000e-003	0.0000	27.1651	27.1651	5.2000e-004	5.0000e-004	27.3265

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					
Apartments Mid Rise	509054	2.7400e-003	0.0235	9.9800e-003	1.5000e-004		1.9000e-003	1.9000e-003		1.9000e-003	1.9000e-003	0.0000	27.1651	27.1651	5.2000e-004	5.0000e-004	27.3265
Total		**2.7400e-003**	**0.0235**	**9.9800e-003**	**1.5000e-004**		**1.9000e-003**	**1.9000e-003**		**1.9000e-003**	**1.9000e-003**	**0.0000**	**27.1651**	**27.1651**	**5.2000e-004**	**5.0000e-004**	**27.3265**

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					
Apartments Mid Rise	509054	2.7400e-003	0.0235	9.9800e-003	1.5000e-004		1.9000e-003	1.9000e-003		1.9000e-003	1.9000e-003	0.0000	27.1651	27.1651	5.2000e-004	5.0000e-004	27.3265
Total		**2.7400e-003**	**0.0235**	**9.9800e-003**	**1.5000e-004**		**1.9000e-003**	**1.9000e-003**		**1.9000e-003**	**1.9000e-003**	**0.0000**	**27.1651**	**27.1651**	**5.2000e-004**	**5.0000e-004**	**27.3265**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	153830	49.0137	2.0200e-003	4.2000e-004	49.1890
Total		**49.0137**	**2.0200e-003**	**4.2000e-004**	**49.1890**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	153830	49.0137	2.0200e-003	4.2000e-004	49.1890
Total		**49.0137**	**2.0200e-003**	**4.2000e-004**	**49.1890**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1622	0.0113	0.3975	6.0000e-005		2.7000e-003	2.7000e-003		2.7000e-003	2.7000e-003	0.0000	8.3966	8.3966	7.8000e-004	1.4000e-004	8.4585
Unmitigated	0.1622	0.0113	0.3975	6.0000e-005		2.7000e-003	2.7000e-003		2.7000e-003	2.7000e-003	0.0000	8.3966	8.3966	7.8000e-004	1.4000e-004	8.4585

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	0.0119					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1373					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	7.8000e-004	6.7000e-003	2.8500e-003	4.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	7.7564	7.7564	1.5000e-004	1.4000e-004	7.8025
Landscaping	0.0122	4.5800e-003	0.3947	2.0000e-005		2.1500e-003	2.1500e-003		2.1500e-003	2.1500e-003	0.0000	0.6401	0.6401	6.3000e-004	0.0000	0.6560
Total	**0.1622**	**0.0113**	**0.3975**	**6.0000e-005**		**2.6900e-003**	**2.6900e-003**		**2.6900e-003**	**2.6900e-003**	**0.0000**	**8.3966**	**8.3966**	**7.8000e-004**	**1.4000e-004**	**8.4585**

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	0.0119					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1373					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	7.8000e-004	6.7000e-003	2.8500e-003	4.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	7.7564	7.7564	1.5000e-004	1.4000e-004	7.8025
Landscaping	0.0122	4.5800e-003	0.3947	2.0000e-005		2.1500e-003	2.1500e-003		2.1500e-003	2.1500e-003	0.0000	0.6401	0.6401	6.3000e-004	0.0000	0.6560
Total	**0.1622**	**0.0113**	**0.3975**	**6.0000e-005**		**2.6900e-003**	**2.6900e-003**		**2.6900e-003**	**2.6900e-003**	**0.0000**	**8.3966**	**8.3966**	**7.8000e-004**	**1.4000e-004**	**8.4585**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	16.5825	0.0813	2.0400e-003	19.2236
Unmitigated	16.5825	0.0813	2.0400e-003	19.2236

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	2.47585 / 1.56086	16.5825	0.0813	2.0400e-003	19.2236
Total		**16.5825**	**0.0813**	**2.0400e-003**	**19.2236**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	2.47585 / 1.56086	16.5825	0.0813	2.0400e-003	19.2236
Total		**16.5825**	**0.0813**	**2.0400e-003**	**19.2236**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	3.5483	0.2097	0.0000	8.7907
Unmitigated	3.5483	0.2097	0.0000	8.7907

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	17.48	3.5483	0.2097	0.0000	8.7907
Total		**3.5483**	**0.2097**	**0.0000**	**8.7907**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	17.48	3.5483	0.2097	0.0000	8.7907
Total		**3.5483**	**0.2097**	**0.0000**	**8.7907**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Mid Rise Apts

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	38.00	Dwelling Unit	1.00	38,000.00	109

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Long Beach Land Use Elements - Mid Rise Apts - Los Angeles-South Coast County, Summer

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Trips and VMT - no construction worker trips

On-road Fugitive Dust - No construction dust emissions

Vehicle Trips - No CalEEMod vehicle emission analysis, use separate VMT emission analysis.

Woodstoves - No wood stoves or fireplaces.

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblFireplaces	NumberWood	1.90	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	WD_TR	6.65	0.00
tblWoodstoves	NumberCatalytic	1.90	0.00
tblWoodstoves	NumberNoncatalytic	1.90	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9776	0.5725	3.3852	3.5900e-003		0.0606	0.0606		0.0606	0.0606	0.0000	689.6450	689.6450	0.0187	0.0125	693.8495
Energy	0.0150	0.1285	0.0547	8.2000e-004		0.0104	0.0104		0.0104	0.0104		164.0788	164.0788	3.1400e-003	3.0100e-003	165.0538
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
Total	**0.9926**	**0.7010**	**3.4399**	**4.4100e-003**	**0.0000**	**0.0709**	**0.0709**	**0.0000**	**0.0709**	**0.0709**	**0.0000**	**853.7238**	**853.7238**	**0.0218**	**0.0156**	**858.9034**

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	0.9776	0.5725	3.3852	3.5900e-003		0.0606	0.0606		0.0606	0.0606	0.0000	689.6450	689.6450	0.0187	0.0125	693.8495
Energy	0.0150	0.1285	0.0547	8.2000e-004		0.0104	0.0104		0.0104	0.0104		164.0788	164.0788	3.1400e-003	3.0100e-003	165.0538
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
Total	**0.9926**	**0.7010**	**3.4399**	**4.4100e-003**	**0.0000**	**0.0709**	**0.0709**	**0.0000**	**0.0709**	**0.0709**	**0.0000**	**853.7238**	**853.7238**	**0.0218**	**0.0156**	**858.9034**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

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	0.0150	0.1285	0.0547	8.2000e-004		0.0104	0.0104		0.0104	0.0104		164.0788	164.0788	3.1400e-003	3.0100e-003	165.0538
NaturalGas Unmitigated	0.0150	0.1285	0.0547	8.2000e-004		0.0104	0.0104		0.0104	0.0104		164.0788	164.0788	3.1400e-003	3.0100e-003	165.0538

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					
Apartments Mid Rise	1394.67	0.0150	0.1285	0.0547	8.2000e-004		0.0104	0.0104		0.0104	0.0104		164.0788	164.0788	3.1400e-003	3.0100e-003	165.0538
Total		**0.0150**	**0.1285**	**0.0547**	**8.2000e-004**		**0.0104**	**0.0104**		**0.0104**	**0.0104**		**164.0788**	**164.0788**	**3.1400e-003**	**3.0100e-003**	**165.0538**

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					
Apartments Mid Rise	1.39467	0.0150	0.1285	0.0547	8.2000e-004		0.0104	0.0104		0.0104	0.0104		164.0788	164.0788	3.1400e-003	3.0100e-003	165.0538
Total		**0.0150**	**0.1285**	**0.0547**	**8.2000e-004**		**0.0104**	**0.0104**		**0.0104**	**0.0104**		**164.0788**	**164.0788**	**3.1400e-003**	**3.0100e-003**	**165.0538**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.9776	0.5725	3.3852	3.5900e-003		0.0606	0.0606		0.0606	0.0606	0.0000	689.6450	689.6450	0.0187	0.0125	693.8495
Unmitigated	0.9776	0.5725	3.3852	3.5900e-003		0.0606	0.0606		0.0606	0.0606	0.0000	689.6450	689.6450	0.0187	0.0125	693.8495

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	0.0651					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7524					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0627	0.5358	0.2280	3.4200e-003		0.0433	0.0433		0.0433	0.0433	0.0000	684.0000	684.0000	0.0131	0.0125	688.0647
Landscaping	0.0973	0.0367	3.1572	1.7000e-004		0.0172	0.0172		0.0172	0.0172		5.6450	5.6450	5.5900e-003		5.7849
Total	**0.9776**	**0.5725**	**3.3852**	**3.5900e-003**		**0.0606**	**0.0606**		**0.0606**	**0.0606**	**0.0000**	**689.6450**	**689.6450**	**0.0187**	**0.0125**	**693.8495**

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	0.0651					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7524					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0627	0.5358	0.2280	3.4200e-003		0.0433	0.0433		0.0433	0.0433	0.0000	684.0000	684.0000	0.0131	0.0125	688.0647
Landscaping	0.0973	0.0367	3.1572	1.7000e-004		0.0172	0.0172		0.0172	0.0172		5.6450	5.6450	5.5900e-003		5.7849
Total	**0.9776**	**0.5725**	**3.3852**	**3.5900e-003**		**0.0606**	**0.0606**		**0.0606**	**0.0606**	**0.0000**	**689.6450**	**689.6450**	**0.0187**	**0.0125**	**693.8495**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Mid Rise Apts

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	38.00	Dwelling Unit	1.00	38,000.00	109

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Trips and VMT - no construction worker trips

On-road Fugitive Dust - No construction dust emissions

Vehicle Trips - No CalEEMod vehicle emission analysis, use separate VMT emission analysis.

Woodstoves - No wood stoves or fireplaces.

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblFireplaces	NumberWood	1.90	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	WD_TR	6.65	0.00
tblWoodstoves	NumberCatalytic	1.90	0.00
tblWoodstoves	NumberNoncatalytic	1.90	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9776	0.5725	3.3852	3.5900e-003		0.0606	0.0606		0.0606	0.0606	0.0000	689.6450	689.6450	0.0187	0.0125	693.8495
Energy	0.0150	0.1285	0.0547	8.2000e-004		0.0104	0.0104		0.0104	0.0104		164.0788	164.0788	3.1400e-003	3.0100e-003	165.0538
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
Total	**0.9926**	**0.7010**	**3.4399**	**4.4100e-003**	**0.0000**	**0.0709**	**0.0709**	**0.0000**	**0.0709**	**0.0709**	**0.0000**	**853.7238**	**853.7238**	**0.0218**	**0.0156**	**858.9034**

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	0.9776	0.5725	3.3852	3.5900e-003		0.0606	0.0606		0.0606	0.0606	0.0000	689.6450	689.6450	0.0187	0.0125	693.8495
Energy	0.0150	0.1285	0.0547	8.2000e-004		0.0104	0.0104		0.0104	0.0104		164.0788	164.0788	3.1400e-003	3.0100e-003	165.0538
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
Total	**0.9926**	**0.7010**	**3.4399**	**4.4100e-003**	**0.0000**	**0.0709**	**0.0709**	**0.0000**	**0.0709**	**0.0709**	**0.0000**	**853.7238**	**853.7238**	**0.0218**	**0.0156**	**858.9034**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

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	0.0150	0.1285	0.0547	8.2000e-004		0.0104	0.0104		0.0104	0.0104		164.0788	164.0788	3.1400e-003	3.0100e-003	165.0538
NaturalGas Unmitigated	0.0150	0.1285	0.0547	8.2000e-004		0.0104	0.0104		0.0104	0.0104		164.0788	164.0788	3.1400e-003	3.0100e-003	165.0538

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					
Apartments Mid Rise	1394.67	0.0150	0.1285	0.0547	8.2000e-004		0.0104	0.0104		0.0104	0.0104		164.0788	164.0788	3.1400e-003	3.0100e-003	165.0538
Total		**0.0150**	**0.1285**	**0.0547**	**8.2000e-004**		**0.0104**	**0.0104**		**0.0104**	**0.0104**		**164.0788**	**164.0788**	**3.1400e-003**	**3.0100e-003**	**165.0538**

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					
Apartments Mid Rise	1.39467	0.0150	0.1285	0.0547	8.2000e-004		0.0104	0.0104		0.0104	0.0104		164.0788	164.0788	3.1400e-003	3.0100e-003	165.0538
Total		**0.0150**	**0.1285**	**0.0547**	**8.2000e-004**		**0.0104**	**0.0104**		**0.0104**	**0.0104**		**164.0788**	**164.0788**	**3.1400e-003**	**3.0100e-003**	**165.0538**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.9776	0.5725	3.3852	3.5900e-003		0.0606	0.0606		0.0606	0.0606	0.0000	689.6450	689.6450	0.0187	0.0125	693.8495
Unmitigated	0.9776	0.5725	3.3852	3.5900e-003		0.0606	0.0606		0.0606	0.0606	0.0000	689.6450	689.6450	0.0187	0.0125	693.8495

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	0.0651					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7524					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0627	0.5358	0.2280	3.4200e-003		0.0433	0.0433		0.0433	0.0433	0.0000	684.0000	684.0000	0.0131	0.0125	688.0647
Landscaping	0.0973	0.0367	3.1572	1.7000e-004		0.0172	0.0172		0.0172	0.0172		5.6450	5.6450	5.5900e-003		5.7849
Total	**0.9776**	**0.5725**	**3.3852**	**3.5900e-003**		**0.0606**	**0.0606**		**0.0606**	**0.0606**	**0.0000**	**689.6450**	**689.6450**	**0.0187**	**0.0125**	**693.8495**

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	0.0651					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7524					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0627	0.5358	0.2280	3.4200e-003		0.0433	0.0433		0.0433	0.0433	0.0000	684.0000	684.0000	0.0131	0.0125	688.0647
Landscaping	0.0973	0.0367	3.1572	1.7000e-004		0.0172	0.0172		0.0172	0.0172		5.6450	5.6450	5.5900e-003		5.7849
Total	**0.9776**	**0.5725**	**3.3852**	**3.5900e-003**		**0.0606**	**0.0606**		**0.0606**	**0.0606**	**0.0000**	**689.6450**	**689.6450**	**0.0187**	**0.0125**	**693.8495**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Condos/Townhouse

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	16.00	Dwelling Unit	1.00	16,000.00	46

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Woodstoves - No wood stoves or fireplaces

Area Mitigation -

Long Beach Land Use Elements - Condos/Townhouse - Los Angeles-South Coast County, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblFireplaces	NumberWood	0.80	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblTripsAndVMT	WorkerTripNumber	0.00	8.00
tblVehicleTrips	ST_TR	5.67	0.00
tblVehicleTrips	SU_TR	4.84	0.00
tblVehicleTrips	WD_TR	5.81	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0737	5.5500e-003	0.2164	1.9000e-004		9.1300e-003	9.1300e-003		9.1300e-003	9.1300e-003	1.0708	3.5354	4.6062	5.3400e-003	6.0000e-005	4.7574
Energy	1.4800e-003	0.0127	5.3900e-003	8.0000e-005		1.0200e-003	1.0200e-003		1.0200e-003	1.0200e-003	0.0000	40.3590	40.3590	1.3400e-003	4.9000e-004	40.5381
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	1.4940	0.0000	1.4940	0.0883	0.0000	3.7014
Water						0.0000	0.0000		0.0000	0.0000	0.3307	6.6514	6.9821	0.0342	8.6000e-004	8.0941
Total	**0.0752**	**0.0182**	**0.2218**	**2.7000e-004**	**0.0000**	**0.0102**	**0.0102**	**0.0000**	**0.0102**	**0.0102**	**2.8955**	**50.5458**	**53.4413**	**0.1292**	**1.4100e-003**	**57.0910**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0683	4.7500e-003	0.1674	3.0000e-005		1.1300e-003	1.1300e-003		1.1300e-003	1.1300e-003	0.0000	3.5354	3.5354	3.3000e-004	6.0000e-005	3.5615
Energy	1.4800e-003	0.0127	5.3900e-003	8.0000e-005		1.0200e-003	1.0200e-003		1.0200e-003	1.0200e-003	0.0000	40.3590	40.3590	1.3400e-003	4.9000e-004	40.5381
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	1.4940	0.0000	1.4940	0.0883	0.0000	3.7014
Water						0.0000	0.0000		0.0000	0.0000	0.3307	6.6514	6.9821	0.0342	8.6000e-004	8.0941
Total	**0.0698**	**0.0174**	**0.1728**	**1.1000e-004**	**0.0000**	**2.1500e-003**	**2.1500e-003**	**0.0000**	**2.1500e-003**	**2.1500e-003**	**1.8247**	**50.5458**	**52.3705**	**0.1242**	**1.4100e-003**	**55.8951**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**7.19**	**4.39**	**22.10**	**59.26**	**0.00**	**78.82**	**78.82**	**0.00**	**78.82**	**78.82**	**36.98**	**0.00**	**2.00**	**3.88**	**0.00**	**2.09**

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	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	25.6933	25.6933	1.0600e-003	2.2000e-004	25.7852
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	25.6933	25.6933	1.0600e-003	2.2000e-004	25.7852
NaturalGas Mitigated	1.4800e-003	0.0127	5.3900e-003	8.0000e-005		1.0200e-003	1.0200e-003		1.0200e-003	1.0200e-003	0.0000	14.6657	14.6657	2.8000e-004	2.7000e-004	14.7529
NaturalGas Unmitigated	1.4800e-003	0.0127	5.3900e-003	8.0000e-005		1.0200e-003	1.0200e-003		1.0200e-003	1.0200e-003	0.0000	14.6657	14.6657	2.8000e-004	2.7000e-004	14.7529

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					
Condo/Townhouse	274825	1.4800e-003	0.0127	5.3900e-003	8.0000e-005		1.0200e-003	1.0200e-003		1.0200e-003	1.0200e-003	0.0000	14.6657	14.6657	2.8000e-004	2.7000e-004	14.7529
Total		**1.4800e-003**	**0.0127**	**5.3900e-003**	**8.0000e-005**		**1.0200e-003**	**1.0200e-003**		**1.0200e-003**	**1.0200e-003**	**0.0000**	**14.6657**	**14.6657**	**2.8000e-004**	**2.7000e-004**	**14.7529**

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					
Condo/Townhouse	274825	1.4800e-003	0.0127	5.3900e-003	8.0000e-005		1.0200e-003	1.0200e-003		1.0200e-003	1.0200e-003	0.0000	14.6657	14.6657	2.8000e-004	2.7000e-004	14.7529
Total		**1.4800e-003**	**0.0127**	**5.3900e-003**	**8.0000e-005**		**1.0200e-003**	**1.0200e-003**		**1.0200e-003**	**1.0200e-003**	**0.0000**	**14.6657**	**14.6657**	**2.8000e-004**	**2.7000e-004**	**14.7529**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	80639	25.6933	1.0600e-003	2.2000e-004	25.7852
Total		**25.6933**	**1.0600e-003**	**2.2000e-004**	**25.7852**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	80639	25.6933	1.0600e-003	2.2000e-004	25.7852
Total		**25.6933**	**1.0600e-003**	**2.2000e-004**	**25.7852**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0683	4.7500e-003	0.1674	3.0000e-005		1.1300e-003	1.1300e-003		1.1300e-003	1.1300e-003	0.0000	3.5354	3.5354	3.3000e-004	6.0000e-005	3.5615
Unmitigated	0.0737	5.5500e-003	0.2164	1.9000e-004		9.1300e-003	9.1300e-003		9.1300e-003	9.1300e-003	1.0708	3.5354	4.6062	5.3400e-003	6.0000e-005	4.7574

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	5.0100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0578					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	5.7300e-003	3.6200e-003	0.0502	1.8000e-004		8.2200e-003	8.2200e-003		8.2200e-003	8.2200e-003	1.0708	3.2659	4.3366	5.0700e-003	6.0000e-005	4.4812
Landscaping	5.1200e-003	1.9300e-003	0.1662	1.0000e-005		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004	0.0000	0.2695	0.2695	2.7000e-004	0.0000	0.2762
Total	**0.0737**	**5.5500e-003**	**0.2164**	**1.9000e-004**		**9.1300e-003**	**9.1300e-003**		**9.1300e-003**	**9.1300e-003**	**1.0708**	**3.5354**	**4.6062**	**5.3400e-003**	**6.0000e-005**	**4.7574**

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	5.0100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0578					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.3000e-004	2.8200e-003	1.2000e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	3.2659	3.2659	6.0000e-005	6.0000e-005	3.2853
Landscaping	5.1200e-003	1.9300e-003	0.1662	1.0000e-005		9.1000e-004	9.1000e-004		9.1000e-004	9.1000e-004	0.0000	0.2695	0.2695	2.7000e-004	0.0000	0.2762
Total	**0.0683**	**4.7500e-003**	**0.1674**	**3.0000e-005**		**1.1400e-003**	**1.1400e-003**		**1.1400e-003**	**1.1400e-003**	**0.0000**	**3.5354**	**3.5354**	**3.3000e-004**	**6.0000e-005**	**3.5615**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	6.9821	0.0342	8.6000e-004	8.0941
Unmitigated	6.9821	0.0342	8.6000e-004	8.0941

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	1.04246 / 0.657206	6.9821	0.0342	8.6000e-004	8.0941
Total		**6.9821**	**0.0342**	**8.6000e-004**	**8.0941**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	1.04246 / 0.657206	6.9821	0.0342	8.6000e-004	8.0941
Total		**6.9821**	**0.0342**	**8.6000e-004**	**8.0941**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.4940	0.0883	0.0000	3.7014
Unmitigated	1.4940	0.0883	0.0000	3.7014

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	7.36	1.4940	0.0883	0.0000	3.7014
Total		**1.4940**	**0.0883**	**0.0000**	**3.7014**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	7.36	1.4940	0.0883	0.0000	3.7014
Total		**1.4940**	**0.0883**	**0.0000**	**3.7014**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Condos/Townhouse

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	16.00	Dwelling Unit	1.00	16,000.00	46

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Woodstoves - No wood stoves or fireplaces

Area Mitigation -

Long Beach Land Use Elements - Condos/Townhouse - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblFireplaces	NumberWood	0.80	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblTripsAndVMT	WorkerTripNumber	0.00	8.00
tblVehicleTrips	ST_TR	5.67	0.00
tblVehicleTrips	SU_TR	4.84	0.00
tblVehicleTrips	WD_TR	5.81	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	8.3000e-004	0.0000	0.0000	7.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**8.3000e-004**	**0.0000**	**0.0000**	**7.7000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	8.3000e-004	0.0000	0.0000	7.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**8.3000e-004**	**0.0000**	**0.0000**	**7.7000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.8434	0.3050	5.3470	0.0143		0.6652	0.6652		0.6652	0.6652	94.4262	290.3768	384.8031	0.4493	5.2800e-003	397.6090
Energy	8.1200e-003	0.0694	0.0295	4.4000e-004		5.6100e-003	5.6100e-003		5.6100e-003	5.6100e-003		88.5818	88.5818	1.7000e-003	1.6200e-003	89.1082
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
Total	**0.8516**	**0.3744**	**5.3765**	**0.0147**	**0.0000**	**0.6709**	**0.6709**	**0.0000**	**0.6709**	**0.6709**	**94.4262**	**378.9586**	**473.3848**	**0.4510**	**6.9000e-003**	**486.7171**

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	0.4116	0.2410	1.4254	1.5100e-003		0.0255	0.0255		0.0255	0.0255	0.0000	290.3768	290.3768	7.8800e-003	5.2800e-003	292.1472
Energy	8.1200e-003	0.0694	0.0295	4.4000e-004		5.6100e-003	5.6100e-003		5.6100e-003	5.6100e-003		88.5818	88.5818	1.7000e-003	1.6200e-003	89.1082
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
Total	**0.4197**	**0.3104**	**1.4549**	**1.9500e-003**	**0.0000**	**0.0311**	**0.0311**	**0.0000**	**0.0311**	**0.0311**	**0.0000**	**378.9586**	**378.9586**	**9.5800e-003**	**6.9000e-003**	**381.2553**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**50.71**	**17.09**	**72.94**	**86.77**	**0.00**	**95.36**	**95.36**	**0.00**	**95.36**	**95.36**	**100.00**	**0.00**	**19.95**	**97.88**	**0.00**	**21.67**

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	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

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	8.1200e-003	0.0694	0.0295	4.4000e-004		5.6100e-003	5.6100e-003		5.6100e-003	5.6100e-003		88.5818	88.5818	1.7000e-003	1.6200e-003	89.1082
NaturalGas Unmitigated	8.1200e-003	0.0694	0.0295	4.4000e-004		5.6100e-003	5.6100e-003		5.6100e-003	5.6100e-003		88.5818	88.5818	1.7000e-003	1.6200e-003	89.1082

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	752.945	8.1200e-003	0.0694	0.0295	4.4000e-004		5.6100e-003	5.6100e-003		5.6100e-003	5.6100e-003		88.5818	88.5818	1.7000e-003	1.6200e-003	89.1082
Total		**8.1200e-003**	**0.0694**	**0.0295**	**4.4000e-004**		**5.6100e-003**	**5.6100e-003**		**5.6100e-003**	**5.6100e-003**		**88.5818**	**88.5818**	**1.7000e-003**	**1.6200e-003**	**89.1082**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	0.752945	8.1200e-003	0.0694	0.0295	4.4000e-004		5.6100e-003	5.6100e-003		5.6100e-003	5.6100e-003		88.5818	88.5818	1.7000e-003	1.6200e-003	89.1082
Total		**8.1200e-003**	**0.0694**	**0.0295**	**4.4000e-004**		**5.6100e-003**	**5.6100e-003**		**5.6100e-003**	**5.6100e-003**		**88.5818**	**88.5818**	**1.7000e-003**	**1.6200e-003**	**89.1082**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4116	0.2410	1.4254	1.5100e-003		0.0255	0.0255		0.0255	0.0255	0.0000	290.3768	290.3768	7.8800e-003	5.2800e-003	292.1472
Unmitigated	0.8434	0.3050	5.3470	0.0143		0.6652	0.6652		0.6652	0.6652	94.4262	290.3768	384.8031	0.4493	5.2800e-003	397.6090

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	0.0274					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3168					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4582	0.2896	4.0176	0.0142		0.6580	0.6580		0.6580	0.6580	94.4262	288.0000	382.4262	0.4469	5.2800e-003	395.1732
Landscaping	0.0410	0.0154	1.3294	7.0000e-005		7.2600e-003	7.2600e-003		7.2600e-003	7.2600e-003		2.3768	2.3768	2.3600e-003		2.4357
Total	**0.8434**	**0.3050**	**5.3470**	**0.0143**		**0.6652**	**0.6652**		**0.6652**	**0.6652**	**94.4262**	**290.3768**	**384.8031**	**0.4493**	**5.2800e-003**	**397.6090**

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	0.0274					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3168					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0264	0.2256	0.0960	1.4400e-003		0.0182	0.0182		0.0182	0.0182	0.0000	288.0000	288.0000	5.5200e-003	5.2800e-003	289.7114
Landscaping	0.0410	0.0154	1.3294	7.0000e-005		7.2600e-003	7.2600e-003		7.2600e-003	7.2600e-003		2.3768	2.3768	2.3600e-003		2.4357
Total	**0.4116**	**0.2410**	**1.4254**	**1.5100e-003**		**0.0255**	**0.0255**		**0.0255**	**0.0255**	**0.0000**	**290.3768**	**290.3768**	**7.8800e-003**	**5.2800e-003**	**292.1472**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Condos/Townhouse

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	16.00	Dwelling Unit	1.00	16,000.00	46

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Woodstoves - No wood stoves or fireplaces

Area Mitigation -

Long Beach Land Use Elements - Condos/Townhouse - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblFireplaces	NumberWood	0.80	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblTripsAndVMT	WorkerTripNumber	0.00	8.00
tblVehicleTrips	ST_TR	5.67	0.00
tblVehicleTrips	SU_TR	4.84	0.00
tblVehicleTrips	WD_TR	5.81	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	8.3000e-004	0.0000	0.0000	7.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**8.3000e-004**	**0.0000**	**0.0000**	**7.7000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	8.3000e-004	0.0000	0.0000	7.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**8.3000e-004**	**0.0000**	**0.0000**	**7.7000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.8434	0.3050	5.3470	0.0143		0.6652	0.6652		0.6652	0.6652	94.4262	290.3768	384.8031	0.4493	5.2800e-003	397.6090
Energy	8.1200e-003	0.0694	0.0295	4.4000e-004		5.6100e-003	5.6100e-003		5.6100e-003	5.6100e-003		88.5818	88.5818	1.7000e-003	1.6200e-003	89.1082
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
Total	**0.8516**	**0.3744**	**5.3765**	**0.0147**	**0.0000**	**0.6709**	**0.6709**	**0.0000**	**0.6709**	**0.6709**	**94.4262**	**378.9586**	**473.3848**	**0.4510**	**6.9000e-003**	**486.7171**

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	0.4116	0.2410	1.4254	1.5100e-003		0.0255	0.0255		0.0255	0.0255	0.0000	290.3768	290.3768	7.8800e-003	5.2800e-003	292.1472
Energy	8.1200e-003	0.0694	0.0295	4.4000e-004		5.6100e-003	5.6100e-003		5.6100e-003	5.6100e-003		88.5818	88.5818	1.7000e-003	1.6200e-003	89.1082
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
Total	**0.4197**	**0.3104**	**1.4549**	**1.9500e-003**	**0.0000**	**0.0311**	**0.0311**	**0.0000**	**0.0311**	**0.0311**	**0.0000**	**378.9586**	**378.9586**	**9.5800e-003**	**6.9000e-003**	**381.2553**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**50.71**	**17.09**	**72.94**	**86.77**	**0.00**	**95.36**	**95.36**	**0.00**	**95.36**	**95.36**	**100.00**	**0.00**	**19.95**	**97.88**	**0.00**	**21.67**

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	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

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	8.1200e-003	0.0694	0.0295	4.4000e-004		5.6100e-003	5.6100e-003		5.6100e-003	5.6100e-003		88.5818	88.5818	1.7000e-003	1.6200e-003	89.1082
NaturalGas Unmitigated	8.1200e-003	0.0694	0.0295	4.4000e-004		5.6100e-003	5.6100e-003		5.6100e-003	5.6100e-003		88.5818	88.5818	1.7000e-003	1.6200e-003	89.1082

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	752.945	8.1200e-003	0.0694	0.0295	4.4000e-004		5.6100e-003	5.6100e-003		5.6100e-003	5.6100e-003		88.5818	88.5818	1.7000e-003	1.6200e-003	89.1082
Total		**8.1200e-003**	**0.0694**	**0.0295**	**4.4000e-004**		**5.6100e-003**	**5.6100e-003**		**5.6100e-003**	**5.6100e-003**		**88.5818**	**88.5818**	**1.7000e-003**	**1.6200e-003**	**89.1082**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	0.752945	8.1200e-003	0.0694	0.0295	4.4000e-004		5.6100e-003	5.6100e-003		5.6100e-003	5.6100e-003		88.5818	88.5818	1.7000e-003	1.6200e-003	89.1082
Total		**8.1200e-003**	**0.0694**	**0.0295**	**4.4000e-004**		**5.6100e-003**	**5.6100e-003**		**5.6100e-003**	**5.6100e-003**		**88.5818**	**88.5818**	**1.7000e-003**	**1.6200e-003**	**89.1082**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4116	0.2410	1.4254	1.5100e-003		0.0255	0.0255		0.0255	0.0255	0.0000	290.3768	290.3768	7.8800e-003	5.2800e-003	292.1472
Unmitigated	0.8434	0.3050	5.3470	0.0143		0.6652	0.6652		0.6652	0.6652	94.4262	290.3768	384.8031	0.4493	5.2800e-003	397.6090

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	0.0274					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3168					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4582	0.2896	4.0176	0.0142		0.6580	0.6580		0.6580	0.6580	94.4262	288.0000	382.4262	0.4469	5.2800e-003	395.1732
Landscaping	0.0410	0.0154	1.3294	7.0000e-005		7.2600e-003	7.2600e-003		7.2600e-003	7.2600e-003		2.3768	2.3768	2.3600e-003		2.4357
Total	**0.8434**	**0.3050**	**5.3470**	**0.0143**		**0.6652**	**0.6652**		**0.6652**	**0.6652**	**94.4262**	**290.3768**	**384.8031**	**0.4493**	**5.2800e-003**	**397.6090**

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	0.0274					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3168					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0264	0.2256	0.0960	1.4400e-003		0.0182	0.0182		0.0182	0.0182	0.0000	288.0000	288.0000	5.5200e-003	5.2800e-003	289.7114
Landscaping	0.0410	0.0154	1.3294	7.0000e-005		7.2600e-003	7.2600e-003		7.2600e-003	7.2600e-003		2.3768	2.3768	2.3600e-003		2.4357
Total	**0.4116**	**0.2410**	**1.4254**	**1.5100e-003**		**0.0255**	**0.0255**		**0.0255**	**0.0255**	**0.0000**	**290.3768**	**290.3768**	**7.8800e-003**	**5.2800e-003**	**292.1472**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - City Park

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	1.00	Acre	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Trips and VMT - No construction trip

On-road Fugitive Dust - No construction dust

Vehicle Trips - No CalEEMod vehicle emissions, refer to separate VMT emission analysis

Long Beach Land Use Elements - City Park - Los Angeles-South Coast County, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	WD_TR	1.89	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0411	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
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	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	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0183	0.0000	0.0183	1.0800e-003	0.0000	0.0453
Water						0.0000	0.0000		0.0000	0.0000	0.0000	4.2177	4.2177	1.7000e-004	4.0000e-005	4.2328
Total	**0.0411**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0183**	**4.2177**	**4.2360**	**1.2500e-003**	**4.0000e-005**	**4.2781**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0411	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
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	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	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0183	0.0000	0.0183	1.0800e-003	0.0000	0.0453
Water						0.0000	0.0000		0.0000	0.0000	0.0000	4.2177	4.2177	1.7000e-004	4.0000e-005	4.2328
Total	**0.0411**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0183**	**4.2177**	**4.2360**	**1.2500e-003**	**4.0000e-005**	**4.2781**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0411	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Unmitigated	0.0411	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005

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	4.6400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0365					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	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Total	**0.0411**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

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	4.6400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0365					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	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Total	**0.0411**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.2177	1.7000e-004	4.0000e-005	4.2328
Unmitigated	4.2177	1.7000e-004	4.0000e-005	4.2328

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 1.19148	4.2177	1.7000e-004	4.0000e-005	4.2328
Total		**4.2177**	**1.7000e-004**	**4.0000e-005**	**4.2328**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 1.19148	4.2177	1.7000e-004	4.0000e-005	4.2328
Total		**4.2177**	**1.7000e-004**	**4.0000e-005**	**4.2328**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0183	1.0800e-003	0.0000	0.0453
Unmitigated	0.0183	1.0800e-003	0.0000	0.0453

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.09	0.0183	1.0800e-003	0.0000	0.0453
Total		**0.0183**	**1.0800e-003**	**0.0000**	**0.0453**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.09	0.0183	1.0800e-003	0.0000	0.0453
Total		**0.0183**	**1.0800e-003**	**0.0000**	**0.0453**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - City Park

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	1.00	Acre	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Trips and VMT - No construction trip

On-road Fugitive Dust - No construction dust

Vehicle Trips - No CalEEMod vehicle emissions, refer to separate VMT emission analysis

Long Beach Land Use Elements - City Park - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	WD_TR	1.89	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2251	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-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
Total	**0.2251**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

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	0.2251	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-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
Total	**0.2251**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2251	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	0.2251	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

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	0.0254					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1997					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**0.2251**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

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	0.0254					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1997					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**0.2251**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - City Park

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	1.00	Acre	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Trips and VMT - No construction trip

On-road Fugitive Dust - No construction dust

Vehicle Trips - No CalEEMod vehicle emissions, refer to separate VMT emission analysis

Long Beach Land Use Elements - City Park - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	WD_TR	1.89	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2251	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-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
Total	**0.2251**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

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	0.2251	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-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
Total	**0.2251**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2251	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	0.2251	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

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	0.0254					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1997					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**0.2251**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

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	0.0254					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1997					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**0.2251**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Golf Course

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Golf Course	1.00	Acre	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Area Mitigation -

Long Beach Land Use Elements - Golf Course - Los Angeles-South Coast County, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblVehicleTrips	ST_TR	5.82	0.00
tblVehicleTrips	SU_TR	5.88	0.00
tblVehicleTrips	WD_TR	5.04	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0411	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
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	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	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.1888	0.0000	0.1888	0.0112	0.0000	0.4677
Water						0.0000	0.0000		0.0000	0.0000	0.0000	4.2177	4.2177	1.7000e-004	4.0000e-005	4.2328
Total	**0.0411**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.1888**	**4.2177**	**4.4065**	**0.0113**	**4.0000e-005**	**4.7005**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0411	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
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	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	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.1888	0.0000	0.1888	0.0112	0.0000	0.4677
Water						0.0000	0.0000		0.0000	0.0000	0.0000	4.2177	4.2177	1.7000e-004	4.0000e-005	4.2328
Total	**0.0411**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.1888**	**4.2177**	**4.4065**	**0.0113**	**4.0000e-005**	**4.7005**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Golf Course	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Golf Course	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Golf Course	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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	tons/yr										MT/yr					
Golf Course	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
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
Golf Course	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
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Golf Course	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Golf Course	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0411	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Unmitigated	0.0411	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005

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	4.6400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0365					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	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Total	**0.0411**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

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	4.6400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0365					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	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Total	**0.0411**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.2177	1.7000e-004	4.0000e-005	4.2328
Unmitigated	4.2177	1.7000e-004	4.0000e-005	4.2328

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Golf Course	0 / 1.19148	4.2177	1.7000e-004	4.0000e-005	4.2328
Total		**4.2177**	**1.7000e-004**	**4.0000e-005**	**4.2328**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Golf Course	0 / 1.19148	4.2177	1.7000e-004	4.0000e-005	4.2328
Total		**4.2177**	**1.7000e-004**	**4.0000e-005**	**4.2328**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.1888	0.0112	0.0000	0.4677
Unmitigated	0.1888	0.0112	0.0000	0.4677

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Golf Course	0.93	0.1888	0.0112	0.0000	0.4677
Total		**0.1888**	**0.0112**	**0.0000**	**0.4677**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Golf Course	0.93	0.1888	0.0112	0.0000	0.4677
Total		**0.1888**	**0.0112**	**0.0000**	**0.4677**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Golf Course

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Golf Course	1.00	Acre	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Area Mitigation -

Long Beach Land Use Elements - Golf Course - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblVehicleTrips	ST_TR	5.82	0.00
tblVehicleTrips	SU_TR	5.88	0.00
tblVehicleTrips	WD_TR	5.04	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2251	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-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
Total	**0.2251**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

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	0.2251	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-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
Total	**0.2251**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Golf Course	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Golf Course	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Golf Course	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

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					
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2251	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	0.2251	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

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	0.0254					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1997					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**0.2251**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

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	0.0254					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1997					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**0.2251**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Golf Course

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Golf Course	1.00	Acre	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Area Mitigation -

Long Beach Land Use Elements - Golf Course - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblVehicleTrips	ST_TR	5.82	0.00
tblVehicleTrips	SU_TR	5.88	0.00
tblVehicleTrips	WD_TR	5.04	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2251	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-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
Total	**0.2251**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

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	0.2251	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-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
Total	**0.2251**	**0.0000**	**1.0000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.0000**	**2.3000e-004**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Golf Course	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Golf Course	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Golf Course	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

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					
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2251	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	0.2251	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

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	0.0254					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1997					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**0.2251**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

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	0.0254					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1997					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**0.2251**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - General Light Industrial

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Vehicle Trips - No CalEEmod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - General Light Industrial - Los Angeles-South Coast County, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Long Beach Land Use Elements - General Light Industrial - Los Angeles-South Coast County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Energy	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	196.1325	196.1325	7.1700e-003	2.0900e-003	196.9337
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	10.9635	0.0000	10.9635	0.6479	0.0000	27.1617
Water						0.0000	0.0000		0.0000	0.0000	3.1958	41.7916	44.9874	0.3300	8.1100e-003	55.6524
Total	**0.1819**	**0.0387**	**0.0330**	**2.3000e-004**	**0.0000**	**2.9400e-003**	**2.9400e-003**	**0.0000**	**2.9400e-003**	**2.9400e-003**	**14.1593**	**237.9252**	**252.0845**	**0.9851**	**0.0102**	**279.7490**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Energy	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	196.1325	196.1325	7.1700e-003	2.0900e-003	196.9337
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	10.9635	0.0000	10.9635	0.6479	0.0000	27.1617
Water						0.0000	0.0000		0.0000	0.0000	3.1958	41.7916	44.9874	0.3300	8.1100e-003	55.6524
Total	**0.1819**	**0.0387**	**0.0330**	**2.3000e-004**	**0.0000**	**2.9400e-003**	**2.9400e-003**	**0.0000**	**2.9400e-003**	**2.9400e-003**	**14.1593**	**237.9252**	**252.0845**	**0.9851**	**0.0102**	**279.7490**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	154.0586	154.0586	6.3600e-003	1.3200e-003	154.6097
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	154.0586	154.0586	6.3600e-003	1.3200e-003	154.6097
NaturalGas Mitigated	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	42.0740	42.0740	8.1000e-004	7.7000e-004	42.3240
NaturalGas Unmitigated	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	42.0740	42.0740	8.1000e-004	7.7000e-004	42.3240

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					
General Light Industry	788436	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	42.0740	42.0740	8.1000e-004	7.7000e-004	42.3240
Total		**4.2500e-003**	**0.0387**	**0.0325**	**2.3000e-004**		**2.9400e-003**	**2.9400e-003**		**2.9400e-003**	**2.9400e-003**	**0.0000**	**42.0740**	**42.0740**	**8.1000e-004**	**7.7000e-004**	**42.3240**

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					
General Light Industry	788436	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	42.0740	42.0740	8.1000e-004	7.7000e-004	42.3240
Total		**4.2500e-003**	**0.0387**	**0.0325**	**2.3000e-004**		**2.9400e-003**	**2.9400e-003**		**2.9400e-003**	**2.9400e-003**	**0.0000**	**42.0740**	**42.0740**	**8.1000e-004**	**7.7000e-004**	**42.3240**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	483516	154.0586	6.3600e-003	1.3200e-003	154.6097
Total		**154.0586**	**6.3600e-003**	**1.3200e-003**	**154.6097**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	483516	154.0586	6.3600e-003	1.3200e-003	154.6097
Total		**154.0586**	**6.3600e-003**	**1.3200e-003**	**154.6097**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Unmitigated	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Total	**0.1776**	**1.0000e-005**	**5.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1600e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Total	**0.1776**	**1.0000e-005**	**5.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	44.9874	0.3300	8.1100e-003	55.6524
Unmitigated	44.9874	0.3300	8.1100e-003	55.6524

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	10.0733 / 0	44.9874	0.3300	8.1100e-003	55.6524
Total		**44.9874**	**0.3300**	**8.1100e-003**	**55.6524**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	10.0733 / 0	44.9874	0.3300	8.1100e-003	55.6524
Total		**44.9874**	**0.3300**	**8.1100e-003**	**55.6524**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	10.9635	0.6479	0.0000	27.1617
Unmitigated	10.9635	0.6479	0.0000	27.1617

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	54.01	10.9635	0.6479	0.0000	27.1617
Total		**10.9635**	**0.6479**	**0.0000**	**27.1617**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	54.01	10.9635	0.6479	0.0000	27.1617
Total		**10.9635**	**0.6479**	**0.0000**	**27.1617**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - General Light Industrial

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Vehicle Trips - No CalEEmod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - General Light Industrial - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
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
Total	**0.9969**	**0.2118**	**0.1824**	**1.2700e-003**	**0.0000**	**0.0161**	**0.0161**	**0.0000**	**0.0161**	**0.0161**		**254.1388**	**254.1388**	**4.9000e-003**	**4.6600e-003**	**255.6496**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
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
Total	**0.9969**	**0.2118**	**0.1824**	**1.2700e-003**	**0.0000**	**0.0161**	**0.0161**	**0.0000**	**0.0161**	**0.0161**		**254.1388**	**254.1388**	**4.9000e-003**	**4.6600e-003**	**255.6496**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

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	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
NaturalGas Unmitigated	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394

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					
General Light Industry	2160.1	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
Total		**0.0233**	**0.2118**	**0.1779**	**1.2700e-003**		**0.0161**	**0.0161**		**0.0161**	**0.0161**		**254.1293**	**254.1293**	**4.8700e-003**	**4.6600e-003**	**255.6394**

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					
General Light Industry	2.1601	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
Total		**0.0233**	**0.2118**	**0.1779**	**1.2700e-003**		**0.0161**	**0.0161**		**0.0161**	**0.0161**		**254.1293**	**254.1293**	**4.8700e-003**	**4.6600e-003**	**255.6394**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Unmitigated	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - General Light Industrial

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Vehicle Trips - No CalEEmod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - General Light Industrial - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
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
Total	**0.9969**	**0.2118**	**0.1824**	**1.2700e-003**	**0.0000**	**0.0161**	**0.0161**	**0.0000**	**0.0161**	**0.0161**		**254.1388**	**254.1388**	**4.9000e-003**	**4.6600e-003**	**255.6496**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
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
Total	**0.9969**	**0.2118**	**0.1824**	**1.2700e-003**	**0.0000**	**0.0161**	**0.0161**	**0.0000**	**0.0161**	**0.0161**		**254.1388**	**254.1388**	**4.9000e-003**	**4.6600e-003**	**255.6496**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

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	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
NaturalGas Unmitigated	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394

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					
General Light Industry	2160.1	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
Total		**0.0233**	**0.2118**	**0.1779**	**1.2700e-003**		**0.0161**	**0.0161**		**0.0161**	**0.0161**		**254.1293**	**254.1293**	**4.8700e-003**	**4.6600e-003**	**255.6394**

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					
General Light Industry	2.1601	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
Total		**0.0233**	**0.2118**	**0.1779**	**1.2700e-003**		**0.0161**	**0.0161**		**0.0161**	**0.0161**		**254.1293**	**254.1293**	**4.8700e-003**	**4.6600e-003**	**255.6394**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Unmitigated	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Junior College

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Vehicle Trips - No CalEEmod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Junior College - Los Angeles-South Coast County, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	11.23	0.00
tblVehicleTrips	SU_TR	1.21	0.00
tblVehicleTrips	WD_TR	27.49	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Long Beach Land Use Elements - Junior College - Los Angeles-South Coast County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Energy	6.3600e-003	0.0578	0.0486	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	202.0173	202.0173	6.9500e-003	2.3400e-003	202.8889
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	11.4954	0.0000	11.4954	0.6794	0.0000	28.4793
Water						0.0000	0.0000		0.0000	0.0000	0.6778	20.6938	21.3717	0.0705	1.8200e-003	23.6761
Total	**0.1840**	**0.0578**	**0.0491**	**3.5000e-004**	**0.0000**	**4.3900e-003**	**4.3900e-003**	**0.0000**	**4.3900e-003**	**4.3900e-003**	**12.1732**	**222.7122**	**234.8854**	**0.7568**	**4.1600e-003**	**255.0454**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Energy	6.3600e-003	0.0578	0.0486	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	202.0173	202.0173	6.9500e-003	2.3400e-003	202.8889
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	11.4954	0.0000	11.4954	0.6794	0.0000	28.4793
Water						0.0000	0.0000		0.0000	0.0000	0.6778	20.6938	21.3717	0.0705	1.8200e-003	23.6761
Total	**0.1840**	**0.0578**	**0.0491**	**3.5000e-004**	**0.0000**	**4.3900e-003**	**4.3900e-003**	**0.0000**	**4.3900e-003**	**4.3900e-003**	**12.1732**	**222.7122**	**234.8854**	**0.7568**	**4.1600e-003**	**255.0454**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	16.60	8.40	6.90	6.40	88.60	5.00	92	7	1

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Junior College (2Yr)	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	139.0691	139.0691	5.7400e-003	1.1900e-003	139.5666
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	139.0691	139.0691	5.7400e-003	1.1900e-003	139.5666
NaturalGas Mitigated	6.3600e-003	0.0578	0.0486	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	62.9482	62.9482	1.2100e-003	1.1500e-003	63.3223
NaturalGas Unmitigated	6.3600e-003	0.0578	0.0486	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	62.9482	62.9482	1.2100e-003	1.1500e-003	63.3223

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					
Junior College (2Yr)	1.1796e+006	6.3600e-003	0.0578	0.0486	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	62.9482	62.9482	1.2100e-003	1.1500e-003	63.3223
Total		**6.3600e-003**	**0.0578**	**0.0486**	**3.5000e-004**		**4.3900e-003**	**4.3900e-003**		**4.3900e-003**	**4.3900e-003**	**0.0000**	**62.9482**	**62.9482**	**1.2100e-003**	**1.1500e-003**	**63.3223**

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					
Junior College (2Yr)	1.1796e+006	6.3600e-003	0.0578	0.0486	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	62.9482	62.9482	1.2100e-003	1.1500e-003	63.3223
Total		**6.3600e-003**	**0.0578**	**0.0486**	**3.5000e-004**		**4.3900e-003**	**4.3900e-003**		**4.3900e-003**	**4.3900e-003**	**0.0000**	**62.9482**	**62.9482**	**1.2100e-003**	**1.1500e-003**	**63.3223**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	436471	139.0691	5.7400e-003	1.1900e-003	139.5666
Total		**139.0691**	**5.7400e-003**	**1.1900e-003**	**139.5666**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	436471	139.0691	5.7400e-003	1.1900e-003	139.5666
Total		**139.0691**	**5.7400e-003**	**1.1900e-003**	**139.5666**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Unmitigated	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Total	**0.1776**	**1.0000e-005**	**5.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1600e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Total	**0.1776**	**1.0000e-005**	**5.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	21.3717	0.0705	1.8200e-003	23.6761
Unmitigated	21.3717	0.0705	1.8200e-003	23.6761

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	2.13658 / 3.34182	21.3717	0.0705	1.8200e-003	23.6761
Total		**21.3717**	**0.0705**	**1.8200e-003**	**23.6761**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	2.13658 / 3.34182	21.3717	0.0705	1.8200e-003	23.6761
Total		**21.3717**	**0.0705**	**1.8200e-003**	**23.6761**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	11.4954	0.6794	0.0000	28.4793
Unmitigated	11.4954	0.6794	0.0000	28.4793

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	56.63	11.4954	0.6794	0.0000	28.4793
Total		**11.4954**	**0.6794**	**0.0000**	**28.4793**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	56.63	11.4954	0.6794	0.0000	28.4793
Total		**11.4954**	**0.6794**	**0.0000**	**28.4793**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Junior College

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Vehicle Trips - No CalEEmod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Junior College - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	11.23	0.00
tblVehicleTrips	SU_TR	1.21	0.00
tblVehicleTrips	WD_TR	27.49	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	0.0349	0.3168	0.2662	1.9000e-003		0.0241	0.0241		0.0241	0.0241		380.2111	380.2111	7.2900e-003	6.9700e-003	382.4705
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
Total	**1.0084**	**0.3169**	**0.2707**	**1.9000e-003**	**0.0000**	**0.0241**	**0.0241**	**0.0000**	**0.0241**	**0.0241**		**380.2206**	**380.2206**	**7.3200e-003**	**6.9700e-003**	**382.4807**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	0.0349	0.3168	0.2662	1.9000e-003		0.0241	0.0241		0.0241	0.0241		380.2111	380.2111	7.2900e-003	6.9700e-003	382.4705
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
Total	**1.0084**	**0.3169**	**0.2707**	**1.9000e-003**	**0.0000**	**0.0241**	**0.0241**	**0.0000**	**0.0241**	**0.0241**		**380.2206**	**380.2206**	**7.3200e-003**	**6.9700e-003**	**382.4807**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	16.60	8.40	6.90	6.40	88.60	5.00	92	7	1

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Junior College (2Yr)	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

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	0.0349	0.3168	0.2662	1.9000e-003		0.0241	0.0241		0.0241	0.0241		380.2111	380.2111	7.2900e-003	6.9700e-003	382.4705
NaturalGas Unmitigated	0.0349	0.3168	0.2662	1.9000e-003		0.0241	0.0241		0.0241	0.0241		380.2111	380.2111	7.2900e-003	6.9700e-003	382.4705

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					
Junior College (2Yr)	3231.79	0.0349	0.3168	0.2662	1.9000e-003		0.0241	0.0241		0.0241	0.0241		380.2111	380.2111	7.2900e-003	6.9700e-003	382.4705
Total		**0.0349**	**0.3168**	**0.2662**	**1.9000e-003**		**0.0241**	**0.0241**		**0.0241**	**0.0241**		**380.2111**	**380.2111**	**7.2900e-003**	**6.9700e-003**	**382.4705**

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					
Junior College (2Yr)	3.23179	0.0349	0.3168	0.2662	1.9000e-003		0.0241	0.0241		0.0241	0.0241		380.2111	380.2111	7.2900e-003	6.9700e-003	382.4705
Total		**0.0349**	**0.3168**	**0.2662**	**1.9000e-003**		**0.0241**	**0.0241**		**0.0241**	**0.0241**		**380.2111**	**380.2111**	**7.2900e-003**	**6.9700e-003**	**382.4705**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Unmitigated	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Junior College

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Vehicle Trips - No CalEEmod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Junior College - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	11.23	0.00
tblVehicleTrips	SU_TR	1.21	0.00
tblVehicleTrips	WD_TR	27.49	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	0.0349	0.3168	0.2662	1.9000e-003		0.0241	0.0241		0.0241	0.0241		380.2111	380.2111	7.2900e-003	6.9700e-003	382.4705
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
Total	**1.0084**	**0.3169**	**0.2707**	**1.9000e-003**	**0.0000**	**0.0241**	**0.0241**	**0.0000**	**0.0241**	**0.0241**		**380.2206**	**380.2206**	**7.3200e-003**	**6.9700e-003**	**382.4807**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	0.0349	0.3168	0.2662	1.9000e-003		0.0241	0.0241		0.0241	0.0241		380.2111	380.2111	7.2900e-003	6.9700e-003	382.4705
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
Total	**1.0084**	**0.3169**	**0.2707**	**1.9000e-003**	**0.0000**	**0.0241**	**0.0241**	**0.0000**	**0.0241**	**0.0241**		**380.2206**	**380.2206**	**7.3200e-003**	**6.9700e-003**	**382.4807**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	16.60	8.40	6.90	6.40	88.60	5.00	92	7	1

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Junior College (2Yr)	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

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	0.0349	0.3168	0.2662	1.9000e-003		0.0241	0.0241		0.0241	0.0241		380.2111	380.2111	7.2900e-003	6.9700e-003	382.4705
NaturalGas Unmitigated	0.0349	0.3168	0.2662	1.9000e-003		0.0241	0.0241		0.0241	0.0241		380.2111	380.2111	7.2900e-003	6.9700e-003	382.4705

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					
Junior College (2Yr)	3231.79	0.0349	0.3168	0.2662	1.9000e-003		0.0241	0.0241		0.0241	0.0241		380.2111	380.2111	7.2900e-003	6.9700e-003	382.4705
Total		**0.0349**	**0.3168**	**0.2662**	**1.9000e-003**		**0.0241**	**0.0241**		**0.0241**	**0.0241**		**380.2111**	**380.2111**	**7.2900e-003**	**6.9700e-003**	**382.4705**

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					
Junior College (2Yr)	3.23179	0.0349	0.3168	0.2662	1.9000e-003		0.0241	0.0241		0.0241	0.0241		380.2111	380.2111	7.2900e-003	6.9700e-003	382.4705
Total		**0.0349**	**0.3168**	**0.2662**	**1.9000e-003**		**0.0241**	**0.0241**		**0.0241**	**0.0241**		**380.2111**	**380.2111**	**7.2900e-003**	**6.9700e-003**	**382.4705**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Unmitigated	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Library

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Library	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

On-road Fugitive Dust - No construction dust

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Library - Los Angeles-South Coast County, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	46.55	0.00
tblVehicleTrips	SU_TR	25.49	0.00
tblVehicleTrips	WD_TR	56.24	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Long Beach Land Use Elements - Library - Los Angeles-South Coast County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Energy	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	196.1325	196.1325	7.1700e-003	2.0900e-003	196.9337
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	8.1440	0.0000	8.1440	0.4813	0.0000	20.1764
Water						0.0000	0.0000		0.0000	0.0000	0.4324	13.2008	13.6332	0.0450	1.1600e-003	15.1032
Total	**0.1819**	**0.0387**	**0.0330**	**2.3000e-004**	**0.0000**	**2.9400e-003**	**2.9400e-003**	**0.0000**	**2.9400e-003**	**2.9400e-003**	**8.5764**	**209.3344**	**217.9108**	**0.5334**	**3.2500e-003**	**232.2145**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Energy	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	196.1325	196.1325	7.1700e-003	2.0900e-003	196.9337
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	8.1440	0.0000	8.1440	0.4813	0.0000	20.1764
Water						0.0000	0.0000		0.0000	0.0000	0.4324	13.2008	13.6332	0.0450	1.1600e-003	15.1032
Total	**0.1819**	**0.0387**	**0.0330**	**2.3000e-004**	**0.0000**	**2.9400e-003**	**2.9400e-003**	**0.0000**	**2.9400e-003**	**2.9400e-003**	**8.5764**	**209.3344**	**217.9108**	**0.5334**	**3.2500e-003**	**232.2145**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Library	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Library	16.60	8.40	6.90	52.00	43.00	5.00	44	44	12

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Library	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	154.0586	154.0586	6.3600e-003	1.3200e-003	154.6097
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	154.0586	154.0586	6.3600e-003	1.3200e-003	154.6097
NaturalGas Mitigated	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	42.0740	42.0740	8.1000e-004	7.7000e-004	42.3240
NaturalGas Unmitigated	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	42.0740	42.0740	8.1000e-004	7.7000e-004	42.3240

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					
Library	788436	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	42.0740	42.0740	8.1000e-004	7.7000e-004	42.3240
Total		**4.2500e-003**	**0.0387**	**0.0325**	**2.3000e-004**		**2.9400e-003**	**2.9400e-003**		**2.9400e-003**	**2.9400e-003**	**0.0000**	**42.0740**	**42.0740**	**8.1000e-004**	**7.7000e-004**	**42.3240**

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					
Library	788436	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	42.0740	42.0740	8.1000e-004	7.7000e-004	42.3240
Total		**4.2500e-003**	**0.0387**	**0.0325**	**2.3000e-004**		**2.9400e-003**	**2.9400e-003**		**2.9400e-003**	**2.9400e-003**	**0.0000**	**42.0740**	**42.0740**	**8.1000e-004**	**7.7000e-004**	**42.3240**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Library	483516	154.0586	6.3600e-003	1.3200e-003	154.6097
Total		**154.0586**	**6.3600e-003**	**1.3200e-003**	**154.6097**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Library	483516	154.0586	6.3600e-003	1.3200e-003	154.6097
Total		**154.0586**	**6.3600e-003**	**1.3200e-003**	**154.6097**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Unmitigated	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Total	**0.1776**	**1.0000e-005**	**5.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1600e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Total	**0.1776**	**1.0000e-005**	**5.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	13.6332	0.0450	1.1600e-003	15.1032
Unmitigated	13.6332	0.0450	1.1600e-003	15.1032

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Library	1.36294 / 2.13179	13.6332	0.0450	1.1600e-003	15.1032
Total		**13.6332**	**0.0450**	**1.1600e-003**	**15.1032**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Library	1.36294 / 2.13179	13.6332	0.0450	1.1600e-003	15.1032
Total		**13.6332**	**0.0450**	**1.1600e-003**	**15.1032**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	8.1440	0.4813	0.0000	20.1764
Unmitigated	8.1440	0.4813	0.0000	20.1764

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Library	40.12	8.1440	0.4813	0.0000	20.1764
Total		**8.1440**	**0.4813**	**0.0000**	**20.1764**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Library	40.12	8.1440	0.4813	0.0000	20.1764
Total		**8.1440**	**0.4813**	**0.0000**	**20.1764**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Library

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Library	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

On-road Fugitive Dust - No construction dust

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Library - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	46.55	0.00
tblVehicleTrips	SU_TR	25.49	0.00
tblVehicleTrips	WD_TR	56.24	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
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
Total	**0.9969**	**0.2118**	**0.1824**	**1.2700e-003**	**0.0000**	**0.0161**	**0.0161**	**0.0000**	**0.0161**	**0.0161**		**254.1388**	**254.1388**	**4.9000e-003**	**4.6600e-003**	**255.6496**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
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
Total	**0.9969**	**0.2118**	**0.1824**	**1.2700e-003**	**0.0000**	**0.0161**	**0.0161**	**0.0000**	**0.0161**	**0.0161**		**254.1388**	**254.1388**	**4.9000e-003**	**4.6600e-003**	**255.6496**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Library	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Library	16.60	8.40	6.90	52.00	43.00	5.00	44	44	12

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Library	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

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	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
NaturalGas Unmitigated	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394

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					
Library	2160.1	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
Total		**0.0233**	**0.2118**	**0.1779**	**1.2700e-003**		**0.0161**	**0.0161**		**0.0161**	**0.0161**		**254.1293**	**254.1293**	**4.8700e-003**	**4.6600e-003**	**255.6394**

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					
Library	2.1601	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
Total		**0.0233**	**0.2118**	**0.1779**	**1.2700e-003**		**0.0161**	**0.0161**		**0.0161**	**0.0161**		**254.1293**	**254.1293**	**4.8700e-003**	**4.6600e-003**	**255.6394**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Unmitigated	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Library

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Library	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

On-road Fugitive Dust - No construction dust

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Library - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	46.55	0.00
tblVehicleTrips	SU_TR	25.49	0.00
tblVehicleTrips	WD_TR	56.24	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
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
Total	**0.9969**	**0.2118**	**0.1824**	**1.2700e-003**	**0.0000**	**0.0161**	**0.0161**	**0.0000**	**0.0161**	**0.0161**		**254.1388**	**254.1388**	**4.9000e-003**	**4.6600e-003**	**255.6496**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
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
Total	**0.9969**	**0.2118**	**0.1824**	**1.2700e-003**	**0.0000**	**0.0161**	**0.0161**	**0.0000**	**0.0161**	**0.0161**		**254.1388**	**254.1388**	**4.9000e-003**	**4.6600e-003**	**255.6496**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Library	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Library	16.60	8.40	6.90	52.00	43.00	5.00	44	44	12

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Library	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

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	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
NaturalGas Unmitigated	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394

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					
Library	2160.1	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
Total		**0.0233**	**0.2118**	**0.1779**	**1.2700e-003**		**0.0161**	**0.0161**		**0.0161**	**0.0161**		**254.1293**	**254.1293**	**4.8700e-003**	**4.6600e-003**	**255.6394**

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					
Library	2.1601	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
Total		**0.0233**	**0.2118**	**0.1779**	**1.2700e-003**		**0.0161**	**0.0161**		**0.0161**	**0.0161**		**254.1293**	**254.1293**	**4.8700e-003**	**4.6600e-003**	**255.6394**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Unmitigated	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Manufacturing

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Manufacturing - Los Angeles-South Coast County, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	1.49	0.00
tblVehicleTrips	SU_TR	0.62	0.00
tblVehicleTrips	WD_TR	3.82	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Energy	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	196.1325	196.1325	7.1700e-003	2.0900e-003	196.9337
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	10.9635	0.0000	10.9635	0.6479	0.0000	27.1617
Water						0.0000	0.0000		0.0000	0.0000	3.1958	41.7916	44.9874	0.3300	8.1100e-003	55.6524
Total	**0.1819**	**0.0387**	**0.0330**	**2.3000e-004**	**0.0000**	**2.9400e-003**	**2.9400e-003**	**0.0000**	**2.9400e-003**	**2.9400e-003**	**14.1593**	**237.9252**	**252.0845**	**0.9851**	**0.0102**	**279.7490**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Energy	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	196.1325	196.1325	7.1700e-003	2.0900e-003	196.9337
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	10.9635	0.0000	10.9635	0.6479	0.0000	27.1617
Water						0.0000	0.0000		0.0000	0.0000	3.1958	41.7916	44.9874	0.3300	8.1100e-003	55.6524
Total	**0.1819**	**0.0387**	**0.0330**	**2.3000e-004**	**0.0000**	**2.9400e-003**	**2.9400e-003**	**0.0000**	**2.9400e-003**	**2.9400e-003**	**14.1593**	**237.9252**	**252.0845**	**0.9851**	**0.0102**	**279.7490**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Manufacturing	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	154.0586	154.0586	6.3600e-003	1.3200e-003	154.6097
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	154.0586	154.0586	6.3600e-003	1.3200e-003	154.6097
NaturalGas Mitigated	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	42.0740	42.0740	8.1000e-004	7.7000e-004	42.3240
NaturalGas Unmitigated	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	42.0740	42.0740	8.1000e-004	7.7000e-004	42.3240

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					
Manufacturing	788436	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	42.0740	42.0740	8.1000e-004	7.7000e-004	42.3240
Total		**4.2500e-003**	**0.0387**	**0.0325**	**2.3000e-004**		**2.9400e-003**	**2.9400e-003**		**2.9400e-003**	**2.9400e-003**	**0.0000**	**42.0740**	**42.0740**	**8.1000e-004**	**7.7000e-004**	**42.3240**

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					
Manufacturing	788436	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	42.0740	42.0740	8.1000e-004	7.7000e-004	42.3240
Total		**4.2500e-003**	**0.0387**	**0.0325**	**2.3000e-004**		**2.9400e-003**	**2.9400e-003**		**2.9400e-003**	**2.9400e-003**	**0.0000**	**42.0740**	**42.0740**	**8.1000e-004**	**7.7000e-004**	**42.3240**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	483516	154.0586	6.3600e-003	1.3200e-003	154.6097
Total		**154.0586**	**6.3600e-003**	**1.3200e-003**	**154.6097**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	483516	154.0586	6.3600e-003	1.3200e-003	154.6097
Total		**154.0586**	**6.3600e-003**	**1.3200e-003**	**154.6097**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Unmitigated	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Total	**0.1776**	**1.0000e-005**	**5.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1600e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Total	**0.1776**	**1.0000e-005**	**5.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	44.9874	0.3300	8.1100e-003	55.6524
Unmitigated	44.9874	0.3300	8.1100e-003	55.6524

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	10.0733 / 0	44.9874	0.3300	8.1100e-003	55.6524
Total		**44.9874**	**0.3300**	**8.1100e-003**	**55.6524**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	10.0733 / 0	44.9874	0.3300	8.1100e-003	55.6524
Total		**44.9874**	**0.3300**	**8.1100e-003**	**55.6524**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	10.9635	0.6479	0.0000	27.1617
Unmitigated	10.9635	0.6479	0.0000	27.1617

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	54.01	10.9635	0.6479	0.0000	27.1617
Total		**10.9635**	**0.6479**	**0.0000**	**27.1617**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	54.01	10.9635	0.6479	0.0000	27.1617
Total		**10.9635**	**0.6479**	**0.0000**	**27.1617**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Manufacturing

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Manufacturing - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	1.49	0.00
tblVehicleTrips	SU_TR	0.62	0.00
tblVehicleTrips	WD_TR	3.82	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
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
Total	**0.9969**	**0.2118**	**0.1824**	**1.2700e-003**	**0.0000**	**0.0161**	**0.0161**	**0.0000**	**0.0161**	**0.0161**		**254.1388**	**254.1388**	**4.9000e-003**	**4.6600e-003**	**255.6496**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
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
Total	**0.9969**	**0.2118**	**0.1824**	**1.2700e-003**	**0.0000**	**0.0161**	**0.0161**	**0.0000**	**0.0161**	**0.0161**		**254.1388**	**254.1388**	**4.9000e-003**	**4.6600e-003**	**255.6496**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Manufacturing	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

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	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
NaturalGas Unmitigated	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394

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					
Manufacturing	2160.1	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
Total		**0.0233**	**0.2118**	**0.1779**	**1.2700e-003**		**0.0161**	**0.0161**		**0.0161**	**0.0161**		**254.1293**	**254.1293**	**4.8700e-003**	**4.6600e-003**	**255.6394**

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					
Manufacturing	2.1601	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
Total		**0.0233**	**0.2118**	**0.1779**	**1.2700e-003**		**0.0161**	**0.0161**		**0.0161**	**0.0161**		**254.1293**	**254.1293**	**4.8700e-003**	**4.6600e-003**	**255.6394**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Unmitigated	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Manufacturing

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Manufacturing - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	1.49	0.00
tblVehicleTrips	SU_TR	0.62	0.00
tblVehicleTrips	WD_TR	3.82	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
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
Total	**0.9969**	**0.2118**	**0.1824**	**1.2700e-003**	**0.0000**	**0.0161**	**0.0161**	**0.0000**	**0.0161**	**0.0161**		**254.1388**	**254.1388**	**4.9000e-003**	**4.6600e-003**	**255.6496**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
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
Total	**0.9969**	**0.2118**	**0.1824**	**1.2700e-003**	**0.0000**	**0.0161**	**0.0161**	**0.0000**	**0.0161**	**0.0161**		**254.1388**	**254.1388**	**4.9000e-003**	**4.6600e-003**	**255.6496**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Manufacturing	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

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	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
NaturalGas Unmitigated	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394

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					
Manufacturing	2160.1	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
Total		**0.0233**	**0.2118**	**0.1779**	**1.2700e-003**		**0.0161**	**0.0161**		**0.0161**	**0.0161**		**254.1293**	**254.1293**	**4.8700e-003**	**4.6600e-003**	**255.6394**

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					
Manufacturing	2.1601	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
Total		**0.0233**	**0.2118**	**0.1779**	**1.2700e-003**		**0.0161**	**0.0161**		**0.0161**	**0.0161**		**254.1293**	**254.1293**	**4.8700e-003**	**4.6600e-003**	**255.6394**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Unmitigated	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Convenience Market

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Convenience Market (24 Hour)	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Convenience Market - Los Angeles-South Coast County, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblVehicleTrips	ST_TR	863.10	0.00
tblVehicleTrips	SU_TR	758.45	0.00
tblVehicleTrips	WD_TR	737.99	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Energy	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	191.1807	191.1807	7.8100e-003	1.6700e-003	191.8737
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	26.5736	0.0000	26.5736	1.5705	0.0000	65.8348
Water						0.0000	0.0000		0.0000	0.0000	1.0237	20.3869	21.4105	0.1060	2.6600e-003	24.8517
Total	**0.1780**	**3.5100e-003**	**3.5000e-003**	**2.0000e-005**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**27.5972**	**211.5687**	**239.1659**	**1.6842**	**4.3300e-003**	**282.5614**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Energy	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	191.1807	191.1807	7.8100e-003	1.6700e-003	191.8737
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	26.5736	0.0000	26.5736	1.5705	0.0000	65.8348
Water						0.0000	0.0000		0.0000	0.0000	1.0237	20.3869	21.4105	0.1060	2.6600e-003	24.8517
Total	**0.1780**	**3.5100e-003**	**3.5000e-003**	**2.0000e-005**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**27.5972**	**211.5687**	**239.1659**	**1.6842**	**4.3300e-003**	**282.5614**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market (24 Hour)	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market (24 Hour)	16.60	8.40	6.90	0.90	80.10	19.00	24	15	61

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market (24 Hour)	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	187.3685	187.3685	7.7400e-003	1.6000e-003	188.0388
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	187.3685	187.3685	7.7400e-003	1.6000e-003	188.0388
NaturalGas Mitigated	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.8122	3.8122	7.0000e-005	7.0000e-005	3.8349
NaturalGas Unmitigated	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.8122	3.8122	7.0000e-005	7.0000e-005	3.8349

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					
Convenience Market (24 Hour)	71438.4	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.8122	3.8122	7.0000e-005	7.0000e-005	3.8349
Total		**3.9000e-004**	**3.5000e-003**	**2.9400e-003**	**2.0000e-005**		**2.7000e-004**	**2.7000e-004**		**2.7000e-004**	**2.7000e-004**	**0.0000**	**3.8122**	**3.8122**	**7.0000e-005**	**7.0000e-005**	**3.8349**

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					
Convenience Market (24 Hour)	71438.4	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.8122	3.8122	7.0000e-005	7.0000e-005	3.8349
Total		**3.9000e-004**	**3.5000e-003**	**2.9400e-003**	**2.0000e-005**		**2.7000e-004**	**2.7000e-004**		**2.7000e-004**	**2.7000e-004**	**0.0000**	**3.8122**	**3.8122**	**7.0000e-005**	**7.0000e-005**	**3.8349**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market (24 Hour)	588060	187.3685	7.7400e-003	1.6000e-003	188.0388
Total		**187.3685**	**7.7400e-003**	**1.6000e-003**	**188.0388**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market (24 Hour)	588060	187.3685	7.7400e-003	1.6000e-003	188.0388
Total		**187.3685**	**7.7400e-003**	**1.6000e-003**	**188.0388**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Unmitigated	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Total	**0.1776**	**1.0000e-005**	**5.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1600e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Total	**0.1776**	**1.0000e-005**	**5.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	21.4105	0.1060	2.6600e-003	24.8517
Unmitigated	21.4105	0.1060	2.6600e-003	24.8517

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market (24 Hour)	3.2266 / 1.97759	21.4105	0.1060	2.6600e-003	24.8517
Total		**21.4105**	**0.1060**	**2.6600e-003**	**24.8517**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market (24 Hour)	3.2266 / 1.97759	21.4105	0.1060	2.6600e-003	24.8517
Total		**21.4105**	**0.1060**	**2.6600e-003**	**24.8517**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	26.5736	1.5705	0.0000	65.8348
Unmitigated	26.5736	1.5705	0.0000	65.8348

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market (24 Hour)	130.91	26.5736	1.5705	0.0000	65.8348
Total		**26.5736**	**1.5705**	**0.0000**	**65.8348**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market (24 Hour)	130.91	26.5736	1.5705	0.0000	65.8348
Total		**26.5736**	**1.5705**	**0.0000**	**65.8348**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Convenience Market

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Convenience Market (24 Hour)	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Convenience Market - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblVehicleTrips	ST_TR	863.10	0.00
tblVehicleTrips	SU_TR	758.45	0.00
tblVehicleTrips	WD_TR	737.99	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
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
Total	**0.9757**	**0.0192**	**0.0206**	**1.2000e-004**	**0.0000**	**1.4800e-003**	**1.4800e-003**	**0.0000**	**1.4800e-003**	**1.4800e-003**		**23.0356**	**23.0356**	**4.7000e-004**	**4.2000e-004**	**23.1731**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
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
Total	**0.9757**	**0.0192**	**0.0206**	**1.2000e-004**	**0.0000**	**1.4800e-003**	**1.4800e-003**	**0.0000**	**1.4800e-003**	**1.4800e-003**		**23.0356**	**23.0356**	**4.7000e-004**	**4.2000e-004**	**23.1731**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market (24 Hour)	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market (24 Hour)	16.60	8.40	6.90	0.90	80.10	19.00	24	15	61

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market (24 Hour)	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

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	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
NaturalGas Unmitigated	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629

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					
Convenience Market (24 Hour)	195.722	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
Total		**2.1100e-003**	**0.0192**	**0.0161**	**1.2000e-004**		**1.4600e-003**	**1.4600e-003**		**1.4600e-003**	**1.4600e-003**		**23.0261**	**23.0261**	**4.4000e-004**	**4.2000e-004**	**23.1629**

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					
Convenience Market (24 Hour)	0.195722	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
Total		**2.1100e-003**	**0.0192**	**0.0161**	**1.2000e-004**		**1.4600e-003**	**1.4600e-003**		**1.4600e-003**	**1.4600e-003**		**23.0261**	**23.0261**	**4.4000e-004**	**4.2000e-004**	**23.1629**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Unmitigated	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Convenience Market

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Convenience Market (24 Hour)	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Convenience Market - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblVehicleTrips	ST_TR	863.10	0.00
tblVehicleTrips	SU_TR	758.45	0.00
tblVehicleTrips	WD_TR	737.99	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
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
Total	**0.9757**	**0.0192**	**0.0206**	**1.2000e-004**	**0.0000**	**1.4800e-003**	**1.4800e-003**	**0.0000**	**1.4800e-003**	**1.4800e-003**		**23.0356**	**23.0356**	**4.7000e-004**	**4.2000e-004**	**23.1731**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
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
Total	**0.9757**	**0.0192**	**0.0206**	**1.2000e-004**	**0.0000**	**1.4800e-003**	**1.4800e-003**	**0.0000**	**1.4800e-003**	**1.4800e-003**		**23.0356**	**23.0356**	**4.7000e-004**	**4.2000e-004**	**23.1731**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market (24 Hour)	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market (24 Hour)	16.60	8.40	6.90	0.90	80.10	19.00	24	15	61

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market (24 Hour)	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

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	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
NaturalGas Unmitigated	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629

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					
Convenience Market (24 Hour)	195.722	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
Total		**2.1100e-003**	**0.0192**	**0.0161**	**1.2000e-004**		**1.4600e-003**	**1.4600e-003**		**1.4600e-003**	**1.4600e-003**		**23.0261**	**23.0261**	**4.4000e-004**	**4.2000e-004**	**23.1629**

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					
Convenience Market (24 Hour)	0.195722	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
Total		**2.1100e-003**	**0.0192**	**0.0161**	**1.2000e-004**		**1.4600e-003**	**1.4600e-003**		**1.4600e-003**	**1.4600e-003**		**23.0261**	**23.0261**	**4.4000e-004**	**4.2000e-004**	**23.1629**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Unmitigated	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Medical_Office_Bldg

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Medical_Office_Bldg - Los Angeles-South Coast County, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	8.96	0.00
tblVehicleTrips	SU_TR	1.55	0.00
tblVehicleTrips	WD_TR	36.13	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Energy	2.4500e-003	0.0222	0.0187	1.3000e-004		1.6900e-003	1.6900e-003		1.6900e-003	1.6900e-003	0.0000	204.4885	204.4885	7.9100e-003	1.9800e-003	205.2773
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	95.4971	0.0000	95.4971	5.6437	0.0000	236.5900
Water						0.0000	0.0000		0.0000	0.0000	1.7341	26.3624	28.0965	0.1792	4.4300e-003	33.8967
Total	**0.1801**	**0.0222**	**0.0192**	**1.3000e-004**	**0.0000**	**1.6900e-003**	**1.6900e-003**	**0.0000**	**1.6900e-003**	**1.6900e-003**	**97.2312**	**230.8519**	**328.0831**	**5.8308**	**6.4100e-003**	**475.7652**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Energy	2.4500e-003	0.0222	0.0187	1.3000e-004		1.6900e-003	1.6900e-003		1.6900e-003	1.6900e-003	0.0000	204.4885	204.4885	7.9100e-003	1.9800e-003	205.2773
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	95.4971	0.0000	95.4971	5.6437	0.0000	236.5900
Water						0.0000	0.0000		0.0000	0.0000	1.7341	26.3624	28.0965	0.1792	4.4300e-003	33.8967
Total	**0.1801**	**0.0222**	**0.0192**	**1.3000e-004**	**0.0000**	**1.6900e-003**	**1.6900e-003**	**0.0000**	**1.6900e-003**	**1.6900e-003**	**97.2312**	**230.8519**	**328.0831**	**5.8308**	**6.4100e-003**	**475.7652**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Medical Office Building	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Medical Office Building	16.60	8.40	6.90	29.60	51.40	19.00	60	30	10

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Medical Office Building	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	180.2902	180.2902	7.4400e-003	1.5400e-003	180.9351
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	180.2902	180.2902	7.4400e-003	1.5400e-003	180.9351
NaturalGas Mitigated	2.4500e-003	0.0222	0.0187	1.3000e-004		1.6900e-003	1.6900e-003		1.6900e-003	1.6900e-003	0.0000	24.1983	24.1983	4.6000e-004	4.4000e-004	24.3421
NaturalGas Unmitigated	2.4500e-003	0.0222	0.0187	1.3000e-004		1.6900e-003	1.6900e-003		1.6900e-003	1.6900e-003	0.0000	24.1983	24.1983	4.6000e-004	4.4000e-004	24.3421

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					
Medical Office Building	453460	2.4500e-003	0.0222	0.0187	1.3000e-004		1.6900e-003	1.6900e-003		1.6900e-003	1.6900e-003	0.0000	24.1983	24.1983	4.6000e-004	4.4000e-004	24.3421
Total		**2.4500e-003**	**0.0222**	**0.0187**	**1.3000e-004**		**1.6900e-003**	**1.6900e-003**		**1.6900e-003**	**1.6900e-003**	**0.0000**	**24.1983**	**24.1983**	**4.6000e-004**	**4.4000e-004**	**24.3421**

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					
Medical Office Building	453460	2.4500e-003	0.0222	0.0187	1.3000e-004		1.6900e-003	1.6900e-003		1.6900e-003	1.6900e-003	0.0000	24.1983	24.1983	4.6000e-004	4.4000e-004	24.3421
Total		**2.4500e-003**	**0.0222**	**0.0187**	**1.3000e-004**		**1.6900e-003**	**1.6900e-003**		**1.6900e-003**	**1.6900e-003**	**0.0000**	**24.1983**	**24.1983**	**4.6000e-004**	**4.4000e-004**	**24.3421**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Medical Office Building	565844	180.2902	7.4400e-003	1.5400e-003	180.9351
Total		**180.2902**	**7.4400e-003**	**1.5400e-003**	**180.9351**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Medical Office Building	565844	180.2902	7.4400e-003	1.5400e-003	180.9351
Total		**180.2902**	**7.4400e-003**	**1.5400e-003**	**180.9351**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Unmitigated	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Total	**0.1776**	**1.0000e-005**	**5.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1600e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Total	**0.1776**	**1.0000e-005**	**5.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	28.0965	0.1792	4.4300e-003	33.8967
Unmitigated	28.0965	0.1792	4.4300e-003	33.8967

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Medical Office Building	5.46593 / 1.04113	28.0965	0.1792	4.4300e-003	33.8967
Total		**28.0965**	**0.1792**	**4.4300e-003**	**33.8967**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Medical Office Building	5.46593 / 1.04113	28.0965	0.1792	4.4300e-003	33.8967
Total		**28.0965**	**0.1792**	**4.4300e-003**	**33.8967**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	95.4971	5.6437	0.0000	236.5900
Unmitigated	95.4971	5.6437	0.0000	236.5900

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Medical Office Building	470.45	95.4971	5.6437	0.0000	236.5900
Total		**95.4971**	**5.6437**	**0.0000**	**236.5900**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Medical Office Building	470.45	95.4971	5.6437	0.0000	236.5900
Total		**95.4971**	**5.6437**	**0.0000**	**236.5900**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Medical_Office_Bldg

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Medical_Office_Bldg - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	8.96	0.00
tblVehicleTrips	SU_TR	1.55	0.00
tblVehicleTrips	WD_TR	36.13	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
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
Total	**0.9870**	**0.1218**	**0.1068**	**7.3000e-004**	**0.0000**	**9.2800e-003**	**9.2800e-003**	**0.0000**	**9.2800e-003**	**9.2800e-003**		**146.1690**	**146.1690**	**2.8300e-003**	**2.6800e-003**	**147.0382**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
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
Total	**0.9870**	**0.1218**	**0.1068**	**7.3000e-004**	**0.0000**	**9.2800e-003**	**9.2800e-003**	**0.0000**	**9.2800e-003**	**9.2800e-003**		**146.1690**	**146.1690**	**2.8300e-003**	**2.6800e-003**	**147.0382**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Medical Office Building	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Medical Office Building	16.60	8.40	6.90	29.60	51.40	19.00	60	30	10

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Medical Office Building	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

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	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
NaturalGas Unmitigated	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280

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					
Medical Office Building	1242.36	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
Total		**0.0134**	**0.1218**	**0.1023**	**7.3000e-004**		**9.2600e-003**	**9.2600e-003**		**9.2600e-003**	**9.2600e-003**		**146.1594**	**146.1594**	**2.8000e-003**	**2.6800e-003**	**147.0280**

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					
Medical Office Building	1.24236	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
Total		**0.0134**	**0.1218**	**0.1023**	**7.3000e-004**		**9.2600e-003**	**9.2600e-003**		**9.2600e-003**	**9.2600e-003**		**146.1594**	**146.1594**	**2.8000e-003**	**2.6800e-003**	**147.0280**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Unmitigated	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Medical_Office_Bldg

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Medical_Office_Bldg - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	8.96	0.00
tblVehicleTrips	SU_TR	1.55	0.00
tblVehicleTrips	WD_TR	36.13	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
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
Total	**0.9870**	**0.1218**	**0.1068**	**7.3000e-004**	**0.0000**	**9.2800e-003**	**9.2800e-003**	**0.0000**	**9.2800e-003**	**9.2800e-003**		**146.1690**	**146.1690**	**2.8300e-003**	**2.6800e-003**	**147.0382**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
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
Total	**0.9870**	**0.1218**	**0.1068**	**7.3000e-004**	**0.0000**	**9.2800e-003**	**9.2800e-003**	**0.0000**	**9.2800e-003**	**9.2800e-003**		**146.1690**	**146.1690**	**2.8300e-003**	**2.6800e-003**	**147.0382**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Medical Office Building	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Medical Office Building	16.60	8.40	6.90	29.60	51.40	19.00	60	30	10

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Medical Office Building	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

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	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
NaturalGas Unmitigated	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280

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					
Medical Office Building	1242.36	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
Total		**0.0134**	**0.1218**	**0.1023**	**7.3000e-004**		**9.2600e-003**	**9.2600e-003**		**9.2600e-003**	**9.2600e-003**		**146.1594**	**146.1594**	**2.8000e-003**	**2.6800e-003**	**147.0280**

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					
Medical Office Building	1.24236	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
Total		**0.0134**	**0.1218**	**0.1023**	**7.3000e-004**		**9.2600e-003**	**9.2600e-003**		**9.2600e-003**	**9.2600e-003**		**146.1594**	**146.1594**	**2.8000e-003**	**2.6800e-003**	**147.0280**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Unmitigated	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - General Office Bldg

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Trips and VMT - No onstruction worker trips

On-road Fugitive Dust - No construction dust

Vehicle Trips - No CalEEmod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - General Office Bldg - Los Angeles-South Coast County, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	WD_TR	11.03	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Energy	2.4500e-003	0.0222	0.0187	1.3000e-004		1.6900e-003	1.6900e-003		1.6900e-003	1.6900e-003	0.0000	204.4885	204.4885	7.9100e-003	1.9800e-003	205.2773
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	8.2232	0.0000	8.2232	0.4860	0.0000	20.3725
Water						0.0000	0.0000		0.0000	0.0000	2.4562	48.9174	51.3736	0.2543	6.3700e-003	59.6306
Total	**0.1801**	**0.0222**	**0.0192**	**1.3000e-004**	**0.0000**	**1.6900e-003**	**1.6900e-003**	**0.0000**	**1.6900e-003**	**1.6900e-003**	**10.6794**	**253.4069**	**264.0863**	**0.7482**	**8.3500e-003**	**285.2816**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Energy	2.4500e-003	0.0222	0.0187	1.3000e-004		1.6900e-003	1.6900e-003		1.6900e-003	1.6900e-003	0.0000	204.4885	204.4885	7.9100e-003	1.9800e-003	205.2773
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	8.2232	0.0000	8.2232	0.4860	0.0000	20.3725
Water						0.0000	0.0000		0.0000	0.0000	2.4562	48.9174	51.3736	0.2543	6.3700e-003	59.6306
Total	**0.1801**	**0.0222**	**0.0192**	**1.3000e-004**	**0.0000**	**1.6900e-003**	**1.6900e-003**	**0.0000**	**1.6900e-003**	**1.6900e-003**	**10.6794**	**253.4069**	**264.0863**	**0.7482**	**8.3500e-003**	**285.2816**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	180.2902	180.2902	7.4400e-003	1.5400e-003	180.9351
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	180.2902	180.2902	7.4400e-003	1.5400e-003	180.9351
NaturalGas Mitigated	2.4500e-003	0.0222	0.0187	1.3000e-004		1.6900e-003	1.6900e-003		1.6900e-003	1.6900e-003	0.0000	24.1983	24.1983	4.6000e-004	4.4000e-004	24.3421
NaturalGas Unmitigated	2.4500e-003	0.0222	0.0187	1.3000e-004		1.6900e-003	1.6900e-003		1.6900e-003	1.6900e-003	0.0000	24.1983	24.1983	4.6000e-004	4.4000e-004	24.3421

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					
General Office Building	453460	2.4500e-003	0.0222	0.0187	1.3000e-004		1.6900e-003	1.6900e-003		1.6900e-003	1.6900e-003	0.0000	24.1983	24.1983	4.6000e-004	4.4000e-004	24.3421
Total		**2.4500e-003**	**0.0222**	**0.0187**	**1.3000e-004**		**1.6900e-003**	**1.6900e-003**		**1.6900e-003**	**1.6900e-003**	**0.0000**	**24.1983**	**24.1983**	**4.6000e-004**	**4.4000e-004**	**24.3421**

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					
General Office Building	453460	2.4500e-003	0.0222	0.0187	1.3000e-004		1.6900e-003	1.6900e-003		1.6900e-003	1.6900e-003	0.0000	24.1983	24.1983	4.6000e-004	4.4000e-004	24.3421
Total		**2.4500e-003**	**0.0222**	**0.0187**	**1.3000e-004**		**1.6900e-003**	**1.6900e-003**		**1.6900e-003**	**1.6900e-003**	**0.0000**	**24.1983**	**24.1983**	**4.6000e-004**	**4.4000e-004**	**24.3421**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	565844	180.2902	7.4400e-003	1.5400e-003	180.9351
Total		**180.2902**	**7.4400e-003**	**1.5400e-003**	**180.9351**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	565844	180.2902	7.4400e-003	1.5400e-003	180.9351
Total		**180.2902**	**7.4400e-003**	**1.5400e-003**	**180.9351**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Unmitigated	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Total	**0.1776**	**1.0000e-005**	**5.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1600e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Total	**0.1776**	**1.0000e-005**	**5.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	51.3736	0.2543	6.3700e-003	59.6306
Unmitigated	51.3736	0.2543	6.3700e-003	59.6306

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	7.74208 / 4.74515	51.3736	0.2543	6.3700e-003	59.6306
Total		**51.3736**	**0.2543**	**6.3700e-003**	**59.6306**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	7.74208 / 4.74515	51.3736	0.2543	6.3700e-003	59.6306
Total		**51.3736**	**0.2543**	**6.3700e-003**	**59.6306**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	8.2232	0.4860	0.0000	20.3725
Unmitigated	8.2232	0.4860	0.0000	20.3725

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	40.51	8.2232	0.4860	0.0000	20.3725
Total		**8.2232**	**0.4860**	**0.0000**	**20.3725**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	40.51	8.2232	0.4860	0.0000	20.3725
Total		**8.2232**	**0.4860**	**0.0000**	**20.3725**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - General Office Bldg

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Trips and VMT - No onstruction worker trips

On-road Fugitive Dust - No construction dust

Vehicle Trips - No CalEEmod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - General Office Bldg - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	WD_TR	11.03	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
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
Total	**0.9870**	**0.1218**	**0.1068**	**7.3000e-004**	**0.0000**	**9.2800e-003**	**9.2800e-003**	**0.0000**	**9.2800e-003**	**9.2800e-003**		**146.1690**	**146.1690**	**2.8300e-003**	**2.6800e-003**	**147.0382**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
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
Total	**0.9870**	**0.1218**	**0.1068**	**7.3000e-004**	**0.0000**	**9.2800e-003**	**9.2800e-003**	**0.0000**	**9.2800e-003**	**9.2800e-003**		**146.1690**	**146.1690**	**2.8300e-003**	**2.6800e-003**	**147.0382**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

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	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
NaturalGas Unmitigated	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280

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					
General Office Building	1242.36	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
Total		**0.0134**	**0.1218**	**0.1023**	**7.3000e-004**		**9.2600e-003**	**9.2600e-003**		**9.2600e-003**	**9.2600e-003**		**146.1594**	**146.1594**	**2.8000e-003**	**2.6800e-003**	**147.0280**

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					
General Office Building	1.24236	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
Total		**0.0134**	**0.1218**	**0.1023**	**7.3000e-004**		**9.2600e-003**	**9.2600e-003**		**9.2600e-003**	**9.2600e-003**		**146.1594**	**146.1594**	**2.8000e-003**	**2.6800e-003**	**147.0280**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Unmitigated	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - General Office Bldg

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Trips and VMT - No onstruction worker trips

On-road Fugitive Dust - No construction dust

Vehicle Trips - No CalEEmod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - General Office Bldg - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	WD_TR	11.03	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
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
Total	**0.9870**	**0.1218**	**0.1068**	**7.3000e-004**	**0.0000**	**9.2800e-003**	**9.2800e-003**	**0.0000**	**9.2800e-003**	**9.2800e-003**		**146.1690**	**146.1690**	**2.8300e-003**	**2.6800e-003**	**147.0382**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
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
Total	**0.9870**	**0.1218**	**0.1068**	**7.3000e-004**	**0.0000**	**9.2800e-003**	**9.2800e-003**	**0.0000**	**9.2800e-003**	**9.2800e-003**		**146.1690**	**146.1690**	**2.8300e-003**	**2.6800e-003**	**147.0382**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

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	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
NaturalGas Unmitigated	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280

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					
General Office Building	1242.36	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
Total		**0.0134**	**0.1218**	**0.1023**	**7.3000e-004**		**9.2600e-003**	**9.2600e-003**		**9.2600e-003**	**9.2600e-003**		**146.1594**	**146.1594**	**2.8000e-003**	**2.6800e-003**	**147.0280**

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					
General Office Building	1.24236	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
Total		**0.0134**	**0.1218**	**0.1023**	**7.3000e-004**		**9.2600e-003**	**9.2600e-003**		**9.2600e-003**	**9.2600e-003**		**146.1594**	**146.1594**	**2.8000e-003**	**2.6800e-003**	**147.0280**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Unmitigated	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Pharmacy/Drugstore

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Pharmacy/Drugstore w/o Drive Thru	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Pharmacy/Drugstore - Los Angeles-South Coast County, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblVehicleTrips	ST_TR	90.06	0.00
tblVehicleTrips	SU_TR	90.06	0.00
tblVehicleTrips	WD_TR	90.06	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Energy	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	191.1807	191.1807	7.8100e-003	1.6700e-003	191.8737
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	26.5878	0.0000	26.5878	1.5713	0.0000	65.8700
Water						0.0000	0.0000		0.0000	0.0000	0.9736	19.3892	20.3627	0.1008	2.5300e-003	23.6355
Total	**0.1780**	**3.5100e-003**	**3.5000e-003**	**2.0000e-005**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**27.5613**	**210.5710**	**238.1323**	**1.6799**	**4.2000e-003**	**281.3804**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Energy	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	191.1807	191.1807	7.8100e-003	1.6700e-003	191.8737
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	26.5878	0.0000	26.5878	1.5713	0.0000	65.8700
Water						0.0000	0.0000		0.0000	0.0000	0.9736	19.3892	20.3627	0.1008	2.5300e-003	23.6355
Total	**0.1780**	**3.5100e-003**	**3.5000e-003**	**2.0000e-005**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**27.5613**	**210.5710**	**238.1323**	**1.6799**	**4.2000e-003**	**281.3804**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

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

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Pharmacy/Drugstore w/o Drive Thru	16.60	8.40	6.90	7.40	73.60	19.00	41	6	53

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Pharmacy/Drugstore w/o Drive Thru	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	187.3685	187.3685	7.7400e-003	1.6000e-003	188.0388
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	187.3685	187.3685	7.7400e-003	1.6000e-003	188.0388
NaturalGas Mitigated	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.8122	3.8122	7.0000e-005	7.0000e-005	3.8349
NaturalGas Unmitigated	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.8122	3.8122	7.0000e-005	7.0000e-005	3.8349

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					
Pharmacy/Drugstore w/o Drive Thru	71438.4	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.8122	3.8122	7.0000e-005	7.0000e-005	3.8349
Total		**3.9000e-004**	**3.5000e-003**	**2.9400e-003**	**2.0000e-005**		**2.7000e-004**	**2.7000e-004**		**2.7000e-004**	**2.7000e-004**	**0.0000**	**3.8122**	**3.8122**	**7.0000e-005**	**7.0000e-005**	**3.8349**

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					
Pharmacy/Drugstore w/o Drive Thru	71438.4	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.8122	3.8122	7.0000e-005	7.0000e-005	3.8349
Total		**3.9000e-004**	**3.5000e-003**	**2.9400e-003**	**2.0000e-005**		**2.7000e-004**	**2.7000e-004**		**2.7000e-004**	**2.7000e-004**	**0.0000**	**3.8122**	**3.8122**	**7.0000e-005**	**7.0000e-005**	**3.8349**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Pharmacy/Drugstore w/o Drive Thru	588060	187.3685	7.7400e-003	1.6000e-003	188.0388
Total		**187.3685**	**7.7400e-003**	**1.6000e-003**	**188.0388**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Pharmacy/Drugstore w/o Drive Thru	588060	187.3685	7.7400e-003	1.6000e-003	188.0388
Total		**187.3685**	**7.7400e-003**	**1.6000e-003**	**188.0388**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Unmitigated	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Total	**0.1776**	**1.0000e-005**	**5.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1600e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Total	**0.1776**	**1.0000e-005**	**5.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	20.3627	0.1008	2.5300e-003	23.6355
Unmitigated	20.3627	0.1008	2.5300e-003	23.6355

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Pharmacy/Drugstore w/o Drive Thru	3.06869 / 1.88081	20.3627	0.1008	2.5300e-003	23.6355
Total		**20.3627**	**0.1008**	**2.5300e-003**	**23.6355**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Pharmacy/Drugstore w/o Drive Thru	3.06869 / 1.88081	20.3627	0.1008	2.5300e-003	23.6355
Total		**20.3627**	**0.1008**	**2.5300e-003**	**23.6355**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	26.5878	1.5713	0.0000	65.8700
Unmitigated	26.5878	1.5713	0.0000	65.8700

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Pharmacy/Drugstore w/o Drive Thru	130.98	26.5878	1.5713	0.0000	65.8700
Total		**26.5878**	**1.5713**	**0.0000**	**65.8700**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Pharmacy/Drugstore w/o Drive Thru	130.98	26.5878	1.5713	0.0000	65.8700
Total		**26.5878**	**1.5713**	**0.0000**	**65.8700**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Pharmacy/Drugstore

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Pharmacy/Drugstore w/o Drive Thru	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Pharmacy/Drugstore - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblVehicleTrips	ST_TR	90.06	0.00
tblVehicleTrips	SU_TR	90.06	0.00
tblVehicleTrips	WD_TR	90.06	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
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
Total	**0.9757**	**0.0192**	**0.0206**	**1.2000e-004**	**0.0000**	**1.4800e-003**	**1.4800e-003**	**0.0000**	**1.4800e-003**	**1.4800e-003**		**23.0356**	**23.0356**	**4.7000e-004**	**4.2000e-004**	**23.1731**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
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
Total	**0.9757**	**0.0192**	**0.0206**	**1.2000e-004**	**0.0000**	**1.4800e-003**	**1.4800e-003**	**0.0000**	**1.4800e-003**	**1.4800e-003**		**23.0356**	**23.0356**	**4.7000e-004**	**4.2000e-004**	**23.1731**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
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

4.2 Trip Summary Information

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

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Pharmacy/Drugstore w/o Drive Thru	16.60	8.40	6.90	7.40	73.60	19.00	41	6	53

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Pharmacy/Drugstore w/o Drive Thru	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

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	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
NaturalGas Unmitigated	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629

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					
Pharmacy/Drugstore w/o Drive Thru	195.722	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
Total		**2.1100e-003**	**0.0192**	**0.0161**	**1.2000e-004**		**1.4600e-003**	**1.4600e-003**		**1.4600e-003**	**1.4600e-003**		**23.0261**	**23.0261**	**4.4000e-004**	**4.2000e-004**	**23.1629**

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					
Pharmacy/Drugstore w/o Drive Thru	0.195722	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
Total		**2.1100e-003**	**0.0192**	**0.0161**	**1.2000e-004**		**1.4600e-003**	**1.4600e-003**		**1.4600e-003**	**1.4600e-003**		**23.0261**	**23.0261**	**4.4000e-004**	**4.2000e-004**	**23.1629**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Unmitigated	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Pharmacy/Drugstore

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Pharmacy/Drugstore w/o Drive Thru	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Pharmacy/Drugstore - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblVehicleTrips	ST_TR	90.06	0.00
tblVehicleTrips	SU_TR	90.06	0.00
tblVehicleTrips	WD_TR	90.06	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
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
Total	**0.9757**	**0.0192**	**0.0206**	**1.2000e-004**	**0.0000**	**1.4800e-003**	**1.4800e-003**	**0.0000**	**1.4800e-003**	**1.4800e-003**		**23.0356**	**23.0356**	**4.7000e-004**	**4.2000e-004**	**23.1731**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
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
Total	**0.9757**	**0.0192**	**0.0206**	**1.2000e-004**	**0.0000**	**1.4800e-003**	**1.4800e-003**	**0.0000**	**1.4800e-003**	**1.4800e-003**		**23.0356**	**23.0356**	**4.7000e-004**	**4.2000e-004**	**23.1731**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
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

4.2 Trip Summary Information

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

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Pharmacy/Drugstore w/o Drive Thru	16.60	8.40	6.90	7.40	73.60	19.00	41	6	53

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Pharmacy/Drugstore w/o Drive Thru	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

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	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
NaturalGas Unmitigated	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629

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					
Pharmacy/Drugstore w/o Drive Thru	195.722	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
Total		**2.1100e-003**	**0.0192**	**0.0161**	**1.2000e-004**		**1.4600e-003**	**1.4600e-003**		**1.4600e-003**	**1.4600e-003**		**23.0261**	**23.0261**	**4.4000e-004**	**4.2000e-004**	**23.1629**

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					
Pharmacy/Drugstore w/o Drive Thru	0.195722	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
Total		**2.1100e-003**	**0.0192**	**0.0161**	**1.2000e-004**		**1.4600e-003**	**1.4600e-003**		**1.4600e-003**	**1.4600e-003**		**23.0261**	**23.0261**	**4.4000e-004**	**4.2000e-004**	**23.1629**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Unmitigated	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - R&D

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - R&D - Los Angeles-South Coast County, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	1.90	0.00
tblVehicleTrips	SU_TR	1.11	0.00
tblVehicleTrips	WD_TR	8.11	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Energy	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	196.1325	196.1325	7.1700e-003	2.0900e-003	196.9337
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	0.6719	0.0000	0.6719	0.0397	0.0000	1.6646
Water						0.0000	0.0000		0.0000	0.0000	6.7950	88.8591	95.6541	0.7016	0.0172	118.3306
Total	**0.1819**	**0.0387**	**0.0330**	**2.3000e-004**	**0.0000**	**2.9400e-003**	**2.9400e-003**	**0.0000**	**2.9400e-003**	**2.9400e-003**	**7.4669**	**284.9927**	**292.4596**	**0.7485**	**0.0193**	**316.9301**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Energy	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	196.1325	196.1325	7.1700e-003	2.0900e-003	196.9337
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	0.6719	0.0000	0.6719	0.0397	0.0000	1.6646
Water						0.0000	0.0000		0.0000	0.0000	6.7950	88.8591	95.6541	0.7016	0.0172	118.3306
Total	**0.1819**	**0.0387**	**0.0330**	**2.3000e-004**	**0.0000**	**2.9400e-003**	**2.9400e-003**	**0.0000**	**2.9400e-003**	**2.9400e-003**	**7.4669**	**284.9927**	**292.4596**	**0.7485**	**0.0193**	**316.9301**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Research & Development	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Research & Development	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Research & Development	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	154.0586	154.0586	6.3600e-003	1.3200e-003	154.6097
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	154.0586	154.0586	6.3600e-003	1.3200e-003	154.6097
NaturalGas Mitigated	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	42.0740	42.0740	8.1000e-004	7.7000e-004	42.3240
NaturalGas Unmitigated	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	42.0740	42.0740	8.1000e-004	7.7000e-004	42.3240

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					
Research & Development	788436	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	42.0740	42.0740	8.1000e-004	7.7000e-004	42.3240
Total		**4.2500e-003**	**0.0387**	**0.0325**	**2.3000e-004**		**2.9400e-003**	**2.9400e-003**		**2.9400e-003**	**2.9400e-003**	**0.0000**	**42.0740**	**42.0740**	**8.1000e-004**	**7.7000e-004**	**42.3240**

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					
Research & Development	788436	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	42.0740	42.0740	8.1000e-004	7.7000e-004	42.3240
Total		**4.2500e-003**	**0.0387**	**0.0325**	**2.3000e-004**		**2.9400e-003**	**2.9400e-003**		**2.9400e-003**	**2.9400e-003**	**0.0000**	**42.0740**	**42.0740**	**8.1000e-004**	**7.7000e-004**	**42.3240**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Research & Development	483516	154.0586	6.3600e-003	1.3200e-003	154.6097
Total		**154.0586**	**6.3600e-003**	**1.3200e-003**	**154.6097**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Research & Development	483516	154.0586	6.3600e-003	1.3200e-003	154.6097
Total		**154.0586**	**6.3600e-003**	**1.3200e-003**	**154.6097**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Unmitigated	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Total	**0.1776**	**1.0000e-005**	**5.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1600e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Total	**0.1776**	**1.0000e-005**	**5.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	95.6541	0.7016	0.0172	118.3306
Unmitigated	95.6541	0.7016	0.0172	118.3306

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Research & Development	21.4182 / 0	95.6541	0.7016	0.0172	118.3306
Total		**95.6541**	**0.7016**	**0.0172**	**118.3306**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Research & Development	21.4182 / 0	95.6541	0.7016	0.0172	118.3306
Total		**95.6541**	**0.7016**	**0.0172**	**118.3306**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.6719	0.0397	0.0000	1.6646
Unmitigated	0.6719	0.0397	0.0000	1.6646

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Research & Development	3.31	0.6719	0.0397	0.0000	1.6646
Total		**0.6719**	**0.0397**	**0.0000**	**1.6646**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Research & Development	3.31	0.6719	0.0397	0.0000	1.6646
Total		**0.6719**	**0.0397**	**0.0000**	**1.6646**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - R&D

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - R&D - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	1.90	0.00
tblVehicleTrips	SU_TR	1.11	0.00
tblVehicleTrips	WD_TR	8.11	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
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
Total	**0.9969**	**0.2118**	**0.1824**	**1.2700e-003**	**0.0000**	**0.0161**	**0.0161**	**0.0000**	**0.0161**	**0.0161**		**254.1388**	**254.1388**	**4.9000e-003**	**4.6600e-003**	**255.6496**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
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
Total	**0.9969**	**0.2118**	**0.1824**	**1.2700e-003**	**0.0000**	**0.0161**	**0.0161**	**0.0000**	**0.0161**	**0.0161**		**254.1388**	**254.1388**	**4.9000e-003**	**4.6600e-003**	**255.6496**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Research & Development	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Research & Development	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Research & Development	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

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	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
NaturalGas Unmitigated	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394

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					
Research & Development	2160.1	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
Total		**0.0233**	**0.2118**	**0.1779**	**1.2700e-003**		**0.0161**	**0.0161**		**0.0161**	**0.0161**		**254.1293**	**254.1293**	**4.8700e-003**	**4.6600e-003**	**255.6394**

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					
Research & Development	2.1601	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
Total		**0.0233**	**0.2118**	**0.1779**	**1.2700e-003**		**0.0161**	**0.0161**		**0.0161**	**0.0161**		**254.1293**	**254.1293**	**4.8700e-003**	**4.6600e-003**	**255.6394**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Unmitigated	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - R&D

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - R&D - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	1.90	0.00
tblVehicleTrips	SU_TR	1.11	0.00
tblVehicleTrips	WD_TR	8.11	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
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
Total	**0.9969**	**0.2118**	**0.1824**	**1.2700e-003**	**0.0000**	**0.0161**	**0.0161**	**0.0000**	**0.0161**	**0.0161**		**254.1388**	**254.1388**	**4.9000e-003**	**4.6600e-003**	**255.6496**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
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
Total	**0.9969**	**0.2118**	**0.1824**	**1.2700e-003**	**0.0000**	**0.0161**	**0.0161**	**0.0000**	**0.0161**	**0.0161**		**254.1388**	**254.1388**	**4.9000e-003**	**4.6600e-003**	**255.6496**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Research & Development	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Research & Development	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Research & Development	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

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	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
NaturalGas Unmitigated	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394

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					
Research & Development	2160.1	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
Total		**0.0233**	**0.2118**	**0.1779**	**1.2700e-003**		**0.0161**	**0.0161**		**0.0161**	**0.0161**		**254.1293**	**254.1293**	**4.8700e-003**	**4.6600e-003**	**255.6394**

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					
Research & Development	2.1601	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
Total		**0.0233**	**0.2118**	**0.1779**	**1.2700e-003**		**0.0161**	**0.0161**		**0.0161**	**0.0161**		**254.1293**	**254.1293**	**4.8700e-003**	**4.6600e-003**	**255.6394**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Unmitigated	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Shopping Ctr

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Regional Shopping Center	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Vehicle Trips - No CalEEMod vehicle emissions analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Shopping Ctr - Los Angeles-South Coast County, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	WD_TR	42.70	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Energy	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	191.1807	191.1807	7.8100e-003	1.6700e-003	191.8737
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	9.2848	0.0000	9.2848	0.5487	0.0000	23.0027
Water						0.0000	0.0000		0.0000	0.0000	1.0237	20.3869	21.4105	0.1060	2.6600e-003	24.8517
Total	**0.1780**	**3.5100e-003**	**3.5000e-003**	**2.0000e-005**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**10.3085**	**211.5687**	**221.8772**	**0.6625**	**4.3300e-003**	**239.7293**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Energy	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	191.1807	191.1807	7.8100e-003	1.6700e-003	191.8737
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	9.2848	0.0000	9.2848	0.5487	0.0000	23.0027
Water						0.0000	0.0000		0.0000	0.0000	1.0237	20.3869	21.4105	0.1060	2.6600e-003	24.8517
Total	**0.1780**	**3.5100e-003**	**3.5000e-003**	**2.0000e-005**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**10.3085**	**211.5687**	**221.8772**	**0.6625**	**4.3300e-003**	**239.7293**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Regional Shopping Center	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Regional Shopping Center	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	187.3685	187.3685	7.7400e-003	1.6000e-003	188.0388
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	187.3685	187.3685	7.7400e-003	1.6000e-003	188.0388
NaturalGas Mitigated	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.8122	3.8122	7.0000e-005	7.0000e-005	3.8349
NaturalGas Unmitigated	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.8122	3.8122	7.0000e-005	7.0000e-005	3.8349

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					
Regional Shopping Center	71438.4	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.8122	3.8122	7.0000e-005	7.0000e-005	3.8349
Total		**3.9000e-004**	**3.5000e-003**	**2.9400e-003**	**2.0000e-005**		**2.7000e-004**	**2.7000e-004**		**2.7000e-004**	**2.7000e-004**	**0.0000**	**3.8122**	**3.8122**	**7.0000e-005**	**7.0000e-005**	**3.8349**

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					
Regional Shopping Center	71438.4	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.8122	3.8122	7.0000e-005	7.0000e-005	3.8349
Total		**3.9000e-004**	**3.5000e-003**	**2.9400e-003**	**2.0000e-005**		**2.7000e-004**	**2.7000e-004**		**2.7000e-004**	**2.7000e-004**	**0.0000**	**3.8122**	**3.8122**	**7.0000e-005**	**7.0000e-005**	**3.8349**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Regional Shopping Center	588060	187.3685	7.7400e-003	1.6000e-003	188.0388
Total		**187.3685**	**7.7400e-003**	**1.6000e-003**	**188.0388**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Regional Shopping Center	588060	187.3685	7.7400e-003	1.6000e-003	188.0388
Total		**187.3685**	**7.7400e-003**	**1.6000e-003**	**188.0388**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Unmitigated	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Total	**0.1776**	**1.0000e-005**	**5.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1600e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Total	**0.1776**	**1.0000e-005**	**5.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	21.4105	0.1060	2.6600e-003	24.8517
Unmitigated	21.4105	0.1060	2.6600e-003	24.8517

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Regional Shopping Center	3.2266 / 1.97759	21.4105	0.1060	2.6600e-003	24.8517
Total		**21.4105**	**0.1060**	**2.6600e-003**	**24.8517**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Regional Shopping Center	3.2266 / 1.97759	21.4105	0.1060	2.6600e-003	24.8517
Total		**21.4105**	**0.1060**	**2.6600e-003**	**24.8517**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	9.2848	0.5487	0.0000	23.0027
Unmitigated	9.2848	0.5487	0.0000	23.0027

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Regional Shopping Center	45.74	9.2848	0.5487	0.0000	23.0027
Total		**9.2848**	**0.5487**	**0.0000**	**23.0027**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Regional Shopping Center	45.74	9.2848	0.5487	0.0000	23.0027
Total		**9.2848**	**0.5487**	**0.0000**	**23.0027**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Shopping Ctr

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Regional Shopping Center	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Vehicle Trips - No CalEEMod vehicle emissions analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Shopping Ctr - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	WD_TR	42.70	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
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
Total	**0.9757**	**0.0192**	**0.0206**	**1.2000e-004**	**0.0000**	**1.4800e-003**	**1.4800e-003**	**0.0000**	**1.4800e-003**	**1.4800e-003**		**23.0356**	**23.0356**	**4.7000e-004**	**4.2000e-004**	**23.1731**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
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
Total	**0.9757**	**0.0192**	**0.0206**	**1.2000e-004**	**0.0000**	**1.4800e-003**	**1.4800e-003**	**0.0000**	**1.4800e-003**	**1.4800e-003**		**23.0356**	**23.0356**	**4.7000e-004**	**4.2000e-004**	**23.1731**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Regional Shopping Center	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Regional Shopping Center	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

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	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
NaturalGas Unmitigated	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629

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					
Regional Shopping Center	195.722	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
Total		**2.1100e-003**	**0.0192**	**0.0161**	**1.2000e-004**		**1.4600e-003**	**1.4600e-003**		**1.4600e-003**	**1.4600e-003**		**23.0261**	**23.0261**	**4.4000e-004**	**4.2000e-004**	**23.1629**

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					
Regional Shopping Center	0.195722	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
Total		**2.1100e-003**	**0.0192**	**0.0161**	**1.2000e-004**		**1.4600e-003**	**1.4600e-003**		**1.4600e-003**	**1.4600e-003**		**23.0261**	**23.0261**	**4.4000e-004**	**4.2000e-004**	**23.1629**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Unmitigated	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Shopping Ctr

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Regional Shopping Center	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Vehicle Trips - No CalEEMod vehicle emissions analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Shopping Ctr - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	WD_TR	42.70	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
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
Total	**0.9757**	**0.0192**	**0.0206**	**1.2000e-004**	**0.0000**	**1.4800e-003**	**1.4800e-003**	**0.0000**	**1.4800e-003**	**1.4800e-003**		**23.0356**	**23.0356**	**4.7000e-004**	**4.2000e-004**	**23.1731**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
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
Total	**0.9757**	**0.0192**	**0.0206**	**1.2000e-004**	**0.0000**	**1.4800e-003**	**1.4800e-003**	**0.0000**	**1.4800e-003**	**1.4800e-003**		**23.0356**	**23.0356**	**4.7000e-004**	**4.2000e-004**	**23.1731**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Regional Shopping Center	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Regional Shopping Center	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

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	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
NaturalGas Unmitigated	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629

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					
Regional Shopping Center	195.722	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
Total		**2.1100e-003**	**0.0192**	**0.0161**	**1.2000e-004**		**1.4600e-003**	**1.4600e-003**		**1.4600e-003**	**1.4600e-003**		**23.0261**	**23.0261**	**4.4000e-004**	**4.2000e-004**	**23.1629**

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					
Regional Shopping Center	0.195722	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
Total		**2.1100e-003**	**0.0192**	**0.0161**	**1.2000e-004**		**1.4600e-003**	**1.4600e-003**		**1.4600e-003**	**1.4600e-003**		**23.0261**	**23.0261**	**4.4000e-004**	**4.2000e-004**	**23.1629**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Unmitigated	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Strip Mall

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Vehicle Trips - No CalEEmod vehicle emissions analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Strip Mall - Los Angeles-South Coast County, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	WD_TR	44.32	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Energy	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	191.1807	191.1807	7.8100e-003	1.6700e-003	191.8737
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	9.2848	0.0000	9.2848	0.5487	0.0000	23.0027
Water						0.0000	0.0000		0.0000	0.0000	1.0237	20.3869	21.4105	0.1060	2.6600e-003	24.8517
Total	**0.1780**	**3.5100e-003**	**3.5000e-003**	**2.0000e-005**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**10.3085**	**211.5687**	**221.8772**	**0.6625**	**4.3300e-003**	**239.7293**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Energy	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	191.1807	191.1807	7.8100e-003	1.6700e-003	191.8737
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	9.2848	0.0000	9.2848	0.5487	0.0000	23.0027
Water						0.0000	0.0000		0.0000	0.0000	1.0237	20.3869	21.4105	0.1060	2.6600e-003	24.8517
Total	**0.1780**	**3.5100e-003**	**3.5000e-003**	**2.0000e-005**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**10.3085**	**211.5687**	**221.8772**	**0.6625**	**4.3300e-003**	**239.7293**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Strip Mall	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Strip Mall	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	187.3685	187.3685	7.7400e-003	1.6000e-003	188.0388
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	187.3685	187.3685	7.7400e-003	1.6000e-003	188.0388
NaturalGas Mitigated	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.8122	3.8122	7.0000e-005	7.0000e-005	3.8349
NaturalGas Unmitigated	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.8122	3.8122	7.0000e-005	7.0000e-005	3.8349

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					
Strip Mall	71438.4	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.8122	3.8122	7.0000e-005	7.0000e-005	3.8349
Total		**3.9000e-004**	**3.5000e-003**	**2.9400e-003**	**2.0000e-005**		**2.7000e-004**	**2.7000e-004**		**2.7000e-004**	**2.7000e-004**	**0.0000**	**3.8122**	**3.8122**	**7.0000e-005**	**7.0000e-005**	**3.8349**

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					
Strip Mall	71438.4	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.8122	3.8122	7.0000e-005	7.0000e-005	3.8349
Total		**3.9000e-004**	**3.5000e-003**	**2.9400e-003**	**2.0000e-005**		**2.7000e-004**	**2.7000e-004**		**2.7000e-004**	**2.7000e-004**	**0.0000**	**3.8122**	**3.8122**	**7.0000e-005**	**7.0000e-005**	**3.8349**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Strip Mall	588060	187.3685	7.7400e-003	1.6000e-003	188.0388
Total		**187.3685**	**7.7400e-003**	**1.6000e-003**	**188.0388**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Strip Mall	588060	187.3685	7.7400e-003	1.6000e-003	188.0388
Total		**187.3685**	**7.7400e-003**	**1.6000e-003**	**188.0388**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Unmitigated	0.1777	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Total	**0.1776**	**1.0000e-005**	**5.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1600e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1600e-003
Total	**0.1776**	**1.0000e-005**	**5.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	21.4105	0.1060	2.6600e-003	24.8517
Unmitigated	21.4105	0.1060	2.6600e-003	24.8517

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Strip Mall	3.2266 / 1.97759	21.4105	0.1060	2.6600e-003	24.8517
Total		**21.4105**	**0.1060**	**2.6600e-003**	**24.8517**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Strip Mall	3.2266 / 1.97759	21.4105	0.1060	2.6600e-003	24.8517
Total		**21.4105**	**0.1060**	**2.6600e-003**	**24.8517**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	9.2848	0.5487	0.0000	23.0027
Unmitigated	9.2848	0.5487	0.0000	23.0027

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Strip Mall	45.74	9.2848	0.5487	0.0000	23.0027
Total		**9.2848**	**0.5487**	**0.0000**	**23.0027**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Strip Mall	45.74	9.2848	0.5487	0.0000	23.0027
Total		**9.2848**	**0.5487**	**0.0000**	**23.0027**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Strip Mall

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Vehicle Trips - No CalEEmod vehicle emissions analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Strip Mall - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	WD_TR	44.32	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
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
Total	**0.9757**	**0.0192**	**0.0206**	**1.2000e-004**	**0.0000**	**1.4800e-003**	**1.4800e-003**	**0.0000**	**1.4800e-003**	**1.4800e-003**		**23.0356**	**23.0356**	**4.7000e-004**	**4.2000e-004**	**23.1731**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
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
Total	**0.9757**	**0.0192**	**0.0206**	**1.2000e-004**	**0.0000**	**1.4800e-003**	**1.4800e-003**	**0.0000**	**1.4800e-003**	**1.4800e-003**		**23.0356**	**23.0356**	**4.7000e-004**	**4.2000e-004**	**23.1731**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Strip Mall	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Strip Mall	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

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	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
NaturalGas Unmitigated	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629

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					
Strip Mall	195.722	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
Total		**2.1100e-003**	**0.0192**	**0.0161**	**1.2000e-004**		**1.4600e-003**	**1.4600e-003**		**1.4600e-003**	**1.4600e-003**		**23.0261**	**23.0261**	**4.4000e-004**	**4.2000e-004**	**23.1629**

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					
Strip Mall	0.195722	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
Total		**2.1100e-003**	**0.0192**	**0.0161**	**1.2000e-004**		**1.4600e-003**	**1.4600e-003**		**1.4600e-003**	**1.4600e-003**		**23.0261**	**23.0261**	**4.4000e-004**	**4.2000e-004**	**23.1629**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Unmitigated	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Strip Mall

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2018
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Vehicle Trips - No CalEEmod vehicle emissions analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Strip Mall - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblConstructionPhase	PhaseEndDate	11/15/2017	11/14/2017
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	WD_TR	44.32	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
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
Total	**0.9757**	**0.0192**	**0.0206**	**1.2000e-004**	**0.0000**	**1.4800e-003**	**1.4800e-003**	**0.0000**	**1.4800e-003**	**1.4800e-003**		**23.0356**	**23.0356**	**4.7000e-004**	**4.2000e-004**	**23.1731**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Energy	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
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
Total	**0.9757**	**0.0192**	**0.0206**	**1.2000e-004**	**0.0000**	**1.4800e-003**	**1.4800e-003**	**0.0000**	**1.4800e-003**	**1.4800e-003**		**23.0356**	**23.0356**	**4.7000e-004**	**4.2000e-004**	**23.1731**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Strip Mall	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Strip Mall	0.547972	0.046127	0.199330	0.125604	0.017697	0.005953	0.018360	0.027618	0.002341	0.002583	0.004804	0.000667	0.000944

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	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
NaturalGas Unmitigated	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629

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					
Strip Mall	195.722	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
Total		**2.1100e-003**	**0.0192**	**0.0161**	**1.2000e-004**		**1.4600e-003**	**1.4600e-003**		**1.4600e-003**	**1.4600e-003**		**23.0261**	**23.0261**	**4.4000e-004**	**4.2000e-004**	**23.1629**

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					
Strip Mall	0.195722	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
Total		**2.1100e-003**	**0.0192**	**0.0161**	**1.2000e-004**		**1.4600e-003**	**1.4600e-003**		**1.4600e-003**	**1.4600e-003**		**23.0261**	**23.0261**	**4.4000e-004**	**4.2000e-004**	**23.1629**

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	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Unmitigated	0.9736	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5100e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	3.0000e-005		0.0102
Total	**0.9736**	**4.0000e-005**	**4.5100e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**3.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Single Family Residential

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	3.00	Dwelling Unit	0.97	5,400.00	9

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Long Beach Land Use Elements - Single Family Residential - Los Angeles-South Coast County, Annual

Project Characteristics - Electricity assume 2040 RPS is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Trips and VMT - No construction worker trip

On-road Fugitive Dust - No construction dust

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis.

Woodstoves - No wood stoves or fireplaces.

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberWood	0.15	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	9.91	0.00
tblVehicleTrips	SU_TR	8.62	0.00
tblVehicleTrips	WD_TR	9.52	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Long Beach Land Use Elements - Single Family Residential - Los Angeles-South Coast County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0232	1.0300e-003	0.0402	3.0000e-005		1.7100e-003	1.7100e-003		1.7100e-003	1.7100e-003	0.2008	0.6629	0.8637	1.0000e-003	1.0000e-005	0.8920
Energy	4.4000e-004	3.8000e-003	1.6200e-003	2.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	8.3215	8.3215	2.5000e-004	1.1000e-004	8.3618
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	0.7490	0.0000	0.7490	0.0443	0.0000	1.8557
Water						0.0000	0.0000		0.0000	0.0000	0.0620	0.6236	0.6856	6.4000e-003	1.6000e-004	0.8919
Total	**0.0236**	**4.8300e-003**	**0.0418**	**5.0000e-005**	**0.0000**	**2.0200e-003**	**2.0200e-003**	**0.0000**	**2.0200e-003**	**2.0200e-003**	**1.0118**	**9.6079**	**10.6197**	**0.0519**	**2.8000e-004**	**12.0013**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0222	8.8000e-004	0.0310	1.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	0.6629	0.6629	6.0000e-005	1.0000e-005	0.6677
Energy	4.4000e-004	3.8000e-003	1.6200e-003	2.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	8.3215	8.3215	2.5000e-004	1.1000e-004	8.3618
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	0.7490	0.0000	0.7490	0.0443	0.0000	1.8557
Water						0.0000	0.0000		0.0000	0.0000	0.0620	0.6236	0.6856	6.4000e-003	1.6000e-004	0.8919
Total	**0.0226**	**4.6800e-003**	**0.0327**	**3.0000e-005**	**0.0000**	**5.2000e-004**	**5.2000e-004**	**0.0000**	**5.2000e-004**	**5.2000e-004**	**0.8111**	**9.6079**	**10.4190**	**0.0510**	**2.8000e-004**	**11.7771**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**4.27**	**3.11**	**21.96**	**40.00**	**0.00**	**74.26**	**74.26**	**0.00**	**74.26**	**74.26**	**19.84**	**0.00**	**1.89**	**1.81**	**0.00**	**1.87**

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	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3.9230	3.9230	1.7000e-004	3.0000e-005	3.9372
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	3.9230	3.9230	1.7000e-004	3.0000e-005	3.9372
NaturalGas Mitigated	4.4000e-004	3.8000e-003	1.6200e-003	2.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	4.3985	4.3985	8.0000e-005	8.0000e-005	4.4246
NaturalGas Unmitigated	4.4000e-004	3.8000e-003	1.6200e-003	2.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	4.3985	4.3985	8.0000e-005	8.0000e-005	4.4246

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					
Single Family Housing	82423.8	4.4000e-004	3.8000e-003	1.6200e-003	2.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	4.3985	4.3985	8.0000e-005	8.0000e-005	4.4246
Total		**4.4000e-004**	**3.8000e-003**	**1.6200e-003**	**2.0000e-005**		**3.1000e-004**	**3.1000e-004**		**3.1000e-004**	**3.1000e-004**	**0.0000**	**4.3985**	**4.3985**	**8.0000e-005**	**8.0000e-005**	**4.4246**

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					
Single Family Housing	82423.8	4.4000e-004	3.8000e-003	1.6200e-003	2.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	4.3985	4.3985	8.0000e-005	8.0000e-005	4.4246
Total		**4.4000e-004**	**3.8000e-003**	**1.6200e-003**	**2.0000e-005**		**3.1000e-004**	**3.1000e-004**		**3.1000e-004**	**3.1000e-004**	**0.0000**	**4.3985**	**4.3985**	**8.0000e-005**	**8.0000e-005**	**4.4246**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	24624.9	3.9230	1.7000e-004	3.0000e-005	3.9372
Total		**3.9230**	**1.7000e-004**	**3.0000e-005**	**3.9372**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	24624.9	3.9230	1.7000e-004	3.0000e-005	3.9372
Total		**3.9230**	**1.7000e-004**	**3.0000e-005**	**3.9372**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0222	8.8000e-004	0.0310	1.0000e-005		2.1000e-004	2.1000e-004		2.1000e-004	2.1000e-004	0.0000	0.6629	0.6629	6.0000e-005	1.0000e-005	0.6677
Unmitigated	0.0232	1.0300e-003	0.0402	3.0000e-005		1.7100e-003	1.7100e-003		1.7100e-003	1.7100e-003	0.2008	0.6629	0.8637	1.0000e-003	1.0000e-005	0.8920

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	1.6900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0195					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.0700e-003	6.8000e-004	9.4200e-003	3.0000e-005		1.5400e-003	1.5400e-003		1.5400e-003	1.5400e-003	0.2008	0.6124	0.8131	9.5000e-004	1.0000e-005	0.8402
Landscaping	9.2000e-004	3.6000e-004	0.0308	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.0505	0.0505	5.0000e-005	0.0000	0.0517
Total	**0.0232**	**1.0400e-003**	**0.0402**	**3.0000e-005**		**1.7100e-003**	**1.7100e-003**		**1.7100e-003**	**1.7100e-003**	**0.2008**	**0.6629**	**0.8637**	**1.0000e-003**	**1.0000e-005**	**0.8920**

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	1.6900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0195					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.0000e-005	5.3000e-004	2.3000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.6124	0.6124	1.0000e-005	1.0000e-005	0.6160
Landscaping	9.2000e-004	3.6000e-004	0.0308	0.0000		1.7000e-004	1.7000e-004		1.7000e-004	1.7000e-004	0.0000	0.0505	0.0505	5.0000e-005	0.0000	0.0517
Total	**0.0222**	**8.9000e-004**	**0.0310**	**0.0000**		**2.1000e-004**	**2.1000e-004**		**2.1000e-004**	**2.1000e-004**	**0.0000**	**0.6629**	**0.6629**	**6.0000e-005**	**1.0000e-005**	**0.6677**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.6856	6.4000e-003	1.6000e-004	0.8919
Unmitigated	0.6856	6.4000e-003	1.6000e-004	0.8919

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.195462 / 0.123226	0.6856	6.4000e-003	1.6000e-004	0.8919
Total		**0.6856**	**6.4000e-003**	**1.6000e-004**	**0.8919**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.195462 / 0.123226	0.6856	6.4000e-003	1.6000e-004	0.8919
Total		**0.6856**	**6.4000e-003**	**1.6000e-004**	**0.8919**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.7490	0.0443	0.0000	1.8557
Unmitigated	0.7490	0.0443	0.0000	1.8557

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	3.69	0.7490	0.0443	0.0000	1.8557
Total		**0.7490**	**0.0443**	**0.0000**	**1.8557**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	3.69	0.7490	0.0443	0.0000	1.8557
Total		**0.7490**	**0.0443**	**0.0000**	**1.8557**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Single Family Residential

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	3.00	Dwelling Unit	0.97	5,400.00	9

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Long Beach Land Use Elements - Single Family Residential - Los Angeles-South Coast County, Summer

Project Characteristics - Electricity assume 2040 RPS is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Trips and VMT - No construction worker trip

On-road Fugitive Dust - No construction dust

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis.

Woodstoves - No wood stoves or fireplaces.

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberWood	0.15	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	9.91	0.00
tblVehicleTrips	SU_TR	8.62	0.00
tblVehicleTrips	WD_TR	9.52	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2095	0.0571	0.9997	2.6800e-003		0.1247	0.1247		0.1247	0.1247	17.7049	54.4457	72.1506	0.0842	9.9000e-004	74.5512
Energy	2.4400e-003	0.0208	8.8600e-003	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5669	26.5669	5.1000e-004	4.9000e-004	26.7248
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
Total	**0.2119**	**0.0780**	**1.0086**	**2.8100e-003**	**0.0000**	**0.1264**	**0.1264**	**0.0000**	**0.1264**	**0.1264**	**17.7049**	**81.0126**	**98.7175**	**0.0847**	**1.4800e-003**	**101.2760**

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	0.1285	0.0451	0.2644	2.8000e-004		4.7900e-003	4.7900e-003		4.7900e-003	4.7900e-003	0.0000	54.4457	54.4457	1.4600e-003	9.9000e-004	54.7772
Energy	2.4400e-003	0.0208	8.8600e-003	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5669	26.5669	5.1000e-004	4.9000e-004	26.7248
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
Total	**0.1309**	**0.0660**	**0.2733**	**4.1000e-004**	**0.0000**	**6.4700e-003**	**6.4700e-003**	**0.0000**	**6.4700e-003**	**6.4700e-003**	**0.0000**	**81.0126**	**81.0126**	**1.9700e-003**	**1.4800e-003**	**81.5019**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**38.21**	**15.39**	**72.90**	**85.41**	**0.00**	**94.88**	**94.88**	**0.00**	**94.88**	**94.88**	**100.00**	**0.00**	**17.93**	**97.68**	**0.00**	**19.52**

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	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

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	2.4400e-003	0.0208	8.8600e-003	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5669	26.5669	5.1000e-004	4.9000e-004	26.7248
NaturalGas Unmitigated	2.4400e-003	0.0208	8.8600e-003	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5669	26.5669	5.1000e-004	4.9000e-004	26.7248

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					
Single Family Housing	225.819	2.4400e-003	0.0208	8.8600e-003	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5669	26.5669	5.1000e-004	4.9000e-004	26.7248
Total		**2.4400e-003**	**0.0208**	**8.8600e-003**	**1.3000e-004**		**1.6800e-003**	**1.6800e-003**		**1.6800e-003**	**1.6800e-003**		**26.5669**	**26.5669**	**5.1000e-004**	**4.9000e-004**	**26.7248**

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					
Single Family Housing	0.225819	2.4400e-003	0.0208	8.8600e-003	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5669	26.5669	5.1000e-004	4.9000e-004	26.7248
Total		**2.4400e-003**	**0.0208**	**8.8600e-003**	**1.3000e-004**		**1.6800e-003**	**1.6800e-003**		**1.6800e-003**	**1.6800e-003**		**26.5669**	**26.5669**	**5.1000e-004**	**4.9000e-004**	**26.7248**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1285	0.0451	0.2644	2.8000e-004		4.7900e-003	4.7900e-003		4.7900e-003	4.7900e-003	0.0000	54.4457	54.4457	1.4600e-003	9.9000e-004	54.7772
Unmitigated	0.2095	0.0571	0.9997	2.6800e-003		0.1247	0.1247		0.1247	0.1247	17.7049	54.4457	72.1506	0.0842	9.9000e-004	74.5512

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	9.2600e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1069					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0859	0.0543	0.7533	2.6700e-003		0.1234	0.1234		0.1234	0.1234	17.7049	54.0000	71.7049	0.0838	9.9000e-004	74.0950
Landscaping	7.3700e-003	2.8400e-003	0.2464	1.0000e-005		1.3700e-003	1.3700e-003		1.3700e-003	1.3700e-003		0.4457	0.4457	4.2000e-004		0.4563
Total	**0.2095**	**0.0571**	**0.9997**	**2.6800e-003**		**0.1247**	**0.1247**		**0.1247**	**0.1247**	**17.7049**	**54.4457**	**72.1506**	**0.0842**	**9.9000e-004**	**74.5512**

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	9.2600e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1069					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	4.9500e-003	0.0423	0.0180	2.7000e-004		3.4200e-003	3.4200e-003		3.4200e-003	3.4200e-003	0.0000	54.0000	54.0000	1.0300e-003	9.9000e-004	54.3209
Landscaping	7.3700e-003	2.8400e-003	0.2464	1.0000e-005		1.3700e-003	1.3700e-003		1.3700e-003	1.3700e-003		0.4457	0.4457	4.2000e-004		0.4563
Total	**0.1285**	**0.0451**	**0.2644**	**2.8000e-004**		**4.7900e-003**	**4.7900e-003**		**4.7900e-003**	**4.7900e-003**	**0.0000**	**54.4457**	**54.4457**	**1.4500e-003**	**9.9000e-004**	**54.7772**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Single Family Residential

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	3.00	Dwelling Unit	0.97	5,400.00	9

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Long Beach Land Use Elements - Single Family Residential - Los Angeles-South Coast County, Winter

Project Characteristics - Electricity assume 2040 RPS is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Trips and VMT - No construction worker trip

On-road Fugitive Dust - No construction dust

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis.

Woodstoves - No wood stoves or fireplaces.

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberWood	0.15	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	9.91	0.00
tblVehicleTrips	SU_TR	8.62	0.00
tblVehicleTrips	WD_TR	9.52	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2095	0.0571	0.9997	2.6800e-003		0.1247	0.1247		0.1247	0.1247	17.7049	54.4457	72.1506	0.0842	9.9000e-004	74.5512
Energy	2.4400e-003	0.0208	8.8600e-003	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5669	26.5669	5.1000e-004	4.9000e-004	26.7248
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
Total	**0.2119**	**0.0780**	**1.0086**	**2.8100e-003**	**0.0000**	**0.1264**	**0.1264**	**0.0000**	**0.1264**	**0.1264**	**17.7049**	**81.0126**	**98.7175**	**0.0847**	**1.4800e-003**	**101.2760**

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	0.1285	0.0451	0.2644	2.8000e-004		4.7900e-003	4.7900e-003		4.7900e-003	4.7900e-003	0.0000	54.4457	54.4457	1.4600e-003	9.9000e-004	54.7772
Energy	2.4400e-003	0.0208	8.8600e-003	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5669	26.5669	5.1000e-004	4.9000e-004	26.7248
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
Total	**0.1309**	**0.0660**	**0.2733**	**4.1000e-004**	**0.0000**	**6.4700e-003**	**6.4700e-003**	**0.0000**	**6.4700e-003**	**6.4700e-003**	**0.0000**	**81.0126**	**81.0126**	**1.9700e-003**	**1.4800e-003**	**81.5019**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**38.21**	**15.39**	**72.90**	**85.41**	**0.00**	**94.88**	**94.88**	**0.00**	**94.88**	**94.88**	**100.00**	**0.00**	**17.93**	**97.68**	**0.00**	**19.52**

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	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Single Family Housing	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

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	2.4400e-003	0.0208	8.8600e-003	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5669	26.5669	5.1000e-004	4.9000e-004	26.7248
NaturalGas Unmitigated	2.4400e-003	0.0208	8.8600e-003	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5669	26.5669	5.1000e-004	4.9000e-004	26.7248

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					
Single Family Housing	225.819	2.4400e-003	0.0208	8.8600e-003	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5669	26.5669	5.1000e-004	4.9000e-004	26.7248
Total		**2.4400e-003**	**0.0208**	**8.8600e-003**	**1.3000e-004**		**1.6800e-003**	**1.6800e-003**		**1.6800e-003**	**1.6800e-003**		**26.5669**	**26.5669**	**5.1000e-004**	**4.9000e-004**	**26.7248**

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					
Single Family Housing	0.225819	2.4400e-003	0.0208	8.8600e-003	1.3000e-004		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003		26.5669	26.5669	5.1000e-004	4.9000e-004	26.7248
Total		**2.4400e-003**	**0.0208**	**8.8600e-003**	**1.3000e-004**		**1.6800e-003**	**1.6800e-003**		**1.6800e-003**	**1.6800e-003**		**26.5669**	**26.5669**	**5.1000e-004**	**4.9000e-004**	**26.7248**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1285	0.0451	0.2644	2.8000e-004		4.7900e-003	4.7900e-003		4.7900e-003	4.7900e-003	0.0000	54.4457	54.4457	1.4600e-003	9.9000e-004	54.7772
Unmitigated	0.2095	0.0571	0.9997	2.6800e-003		0.1247	0.1247		0.1247	0.1247	17.7049	54.4457	72.1506	0.0842	9.9000e-004	74.5512

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	9.2600e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1069					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0859	0.0543	0.7533	2.6700e-003		0.1234	0.1234		0.1234	0.1234	17.7049	54.0000	71.7049	0.0838	9.9000e-004	74.0950
Landscaping	7.3700e-003	2.8400e-003	0.2464	1.0000e-005		1.3700e-003	1.3700e-003		1.3700e-003	1.3700e-003		0.4457	0.4457	4.2000e-004		0.4563
Total	**0.2095**	**0.0571**	**0.9997**	**2.6800e-003**		**0.1247**	**0.1247**		**0.1247**	**0.1247**	**17.7049**	**54.4457**	**72.1506**	**0.0842**	**9.9000e-004**	**74.5512**

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	9.2600e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1069					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	4.9500e-003	0.0423	0.0180	2.7000e-004		3.4200e-003	3.4200e-003		3.4200e-003	3.4200e-003	0.0000	54.0000	54.0000	1.0300e-003	9.9000e-004	54.3209
Landscaping	7.3700e-003	2.8400e-003	0.2464	1.0000e-005		1.3700e-003	1.3700e-003		1.3700e-003	1.3700e-003		0.4457	0.4457	4.2000e-004		0.4563
Total	**0.1285**	**0.0451**	**0.2644**	**2.8000e-004**		**4.7900e-003**	**4.7900e-003**		**4.7900e-003**	**4.7900e-003**	**0.0000**	**54.4457**	**54.4457**	**1.4500e-003**	**9.9000e-004**	**54.7772**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Low Rise Apts

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	16.00	Dwelling Unit	1.00	16,000.00	46

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Long Beach Land Use Elements - Low Rise Apts - Los Angeles-South Coast County, Annual

Project Characteristics - Electricity assume 2040 RPS goal is same as Senate Bill 350 50% RPS goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Trips and VMT - No construction worker trip

On-road Fugitive Dust - No construction dust

Grading -

Vehicle Trips - No CalEEmod vehicle emissions, refer to separate VMT emission analysis.

Woodstoves - No wood stoves or fireplaces

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberWood	0.80	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	WD_TR	6.59	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0735	5.5200e-003	0.2145	1.9000e-004		9.1400e-003	9.1400e-003		9.1400e-003	9.1400e-003	1.0708	3.5354	4.6062	5.3200e-003	6.0000e-005	4.7571
Energy	1.4100e-003	0.0121	5.1300e-003	8.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004	0.0000	24.7599	24.7599	7.3000e-004	3.5000e-004	24.8818
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	1.4940	0.0000	1.4940	0.0883	0.0000	3.7014
Water						0.0000	0.0000		0.0000	0.0000	0.3307	3.3257	3.6564	0.0341	8.3000e-004	4.7567
Total	**0.0749**	**0.0176**	**0.2196**	**2.7000e-004**	**0.0000**	**0.0101**	**0.0101**	**0.0000**	**0.0101**	**0.0101**	**2.8955**	**31.6210**	**34.5165**	**0.1285**	**1.2400e-003**	**38.0970**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0681	4.7200e-003	0.1655	3.0000e-005		1.1400e-003	1.1400e-003		1.1400e-003	1.1400e-003	0.0000	3.5354	3.5354	3.2000e-004	6.0000e-005	3.5612
Energy	1.4100e-003	0.0121	5.1300e-003	8.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004	0.0000	24.7599	24.7599	7.3000e-004	3.5000e-004	24.8818
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	1.4940	0.0000	1.4940	0.0883	0.0000	3.7014
Water						0.0000	0.0000		0.0000	0.0000	0.3307	3.3257	3.6564	0.0341	8.3000e-004	4.7567
Total	**0.0695**	**0.0168**	**0.1706**	**1.1000e-004**	**0.0000**	**2.1100e-003**	**2.1100e-003**	**0.0000**	**2.1100e-003**	**2.1100e-003**	**1.8247**	**31.6210**	**33.4457**	**0.1235**	**1.2400e-003**	**36.9011**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**7.20**	**4.55**	**22.32**	**59.26**	**0.00**	**79.13**	**79.13**	**0.00**	**79.13**	**79.13**	**36.98**	**0.00**	**3.10**	**3.89**	**0.00**	**3.14**

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	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	10.8086	10.8086	4.6000e-004	9.0000e-005	10.8477
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	10.8086	10.8086	4.6000e-004	9.0000e-005	10.8477
NaturalGas Mitigated	1.4100e-003	0.0121	5.1300e-003	8.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004	0.0000	13.9512	13.9512	2.7000e-004	2.6000e-004	14.0341
NaturalGas Unmitigated	1.4100e-003	0.0121	5.1300e-003	8.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004	0.0000	13.9512	13.9512	2.7000e-004	2.6000e-004	14.0341

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					
Apartments Low Rise	261436	1.4100e-003	0.0121	5.1300e-003	8.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004	0.0000	13.9512	13.9512	2.7000e-004	2.6000e-004	14.0341
Total		**1.4100e-003**	**0.0121**	**5.1300e-003**	**8.0000e-005**		**9.7000e-004**	**9.7000e-004**		**9.7000e-004**	**9.7000e-004**	**0.0000**	**13.9512**	**13.9512**	**2.7000e-004**	**2.6000e-004**	**14.0341**

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					
Apartments Low Rise	261436	1.4100e-003	0.0121	5.1300e-003	8.0000e-005		9.7000e-004	9.7000e-004		9.7000e-004	9.7000e-004	0.0000	13.9512	13.9512	2.7000e-004	2.6000e-004	14.0341
Total		**1.4100e-003**	**0.0121**	**5.1300e-003**	**8.0000e-005**		**9.7000e-004**	**9.7000e-004**		**9.7000e-004**	**9.7000e-004**	**0.0000**	**13.9512**	**13.9512**	**2.7000e-004**	**2.6000e-004**	**14.0341**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	67846.2	10.8086	4.6000e-004	9.0000e-005	10.8477
Total		**10.8086**	**4.6000e-004**	**9.0000e-005**	**10.8477**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	67846.2	10.8086	4.6000e-004	9.0000e-005	10.8477
Total		**10.8086**	**4.6000e-004**	**9.0000e-005**	**10.8477**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0681	4.7200e-003	0.1655	3.0000e-005		1.1400e-003	1.1400e-003		1.1400e-003	1.1400e-003	0.0000	3.5354	3.5354	3.2000e-004	6.0000e-005	3.5612
Unmitigated	0.0735	5.5200e-003	0.2145	1.9000e-004		9.1400e-003	9.1400e-003		9.1400e-003	9.1400e-003	1.0708	3.5354	4.6062	5.3200e-003	6.0000e-005	4.7571

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	5.0100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0578					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	5.7300e-003	3.6200e-003	0.0502	1.8000e-004		8.2200e-003	8.2200e-003		8.2200e-003	8.2200e-003	1.0708	3.2659	4.3366	5.0700e-003	6.0000e-005	4.4812
Landscaping	4.9100e-003	1.9000e-003	0.1643	1.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	0.2695	0.2695	2.6000e-004	0.0000	0.2759
Total	**0.0735**	**5.5200e-003**	**0.2145**	**1.9000e-004**		**9.1400e-003**	**9.1400e-003**		**9.1400e-003**	**9.1400e-003**	**1.0708**	**3.5354**	**4.6062**	**5.3300e-003**	**6.0000e-005**	**4.7571**

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	5.0100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0578					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.3000e-004	2.8200e-003	1.2000e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	3.2659	3.2659	6.0000e-005	6.0000e-005	3.2853
Landscaping	4.9100e-003	1.9000e-003	0.1643	1.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	0.2695	0.2695	2.6000e-004	0.0000	0.2759
Total	**0.0681**	**4.7200e-003**	**0.1655**	**3.0000e-005**		**1.1500e-003**	**1.1500e-003**		**1.1500e-003**	**1.1500e-003**	**0.0000**	**3.5354**	**3.5354**	**3.2000e-004**	**6.0000e-005**	**3.5612**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	3.6564	0.0341	8.3000e-004	4.7567
Unmitigated	3.6564	0.0341	8.3000e-004	4.7567

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.04246 / 0.657206	3.6564	0.0341	8.3000e-004	4.7567
Total		**3.6564**	**0.0341**	**8.3000e-004**	**4.7567**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.04246 / 0.657206	3.6564	0.0341	8.3000e-004	4.7567
Total		**3.6564**	**0.0341**	**8.3000e-004**	**4.7567**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.4940	0.0883	0.0000	3.7014
Unmitigated	1.4940	0.0883	0.0000	3.7014

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	7.36	1.4940	0.0883	0.0000	3.7014
Total		**1.4940**	**0.0883**	**0.0000**	**3.7014**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	7.36	1.4940	0.0883	0.0000	3.7014
Total		**1.4940**	**0.0883**	**0.0000**	**3.7014**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Low Rise Apts

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	16.00	Dwelling Unit	1.00	16,000.00	46

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Long Beach Land Use Elements - Low Rise Apts - Los Angeles-South Coast County, Summer

Project Characteristics - Electricity assume 2040 RPS goal is same as Senate Bill 350 50% RPS goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Trips and VMT - No construction worker trip

On-road Fugitive Dust - No construction dust

Grading -

Vehicle Trips - No CalEEmod vehicle emissions, refer to separate VMT emission analysis.

Woodstoves - No wood stoves or fireplaces

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberWood	0.80	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	WD_TR	6.59	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.8418	0.3047	5.3319	0.0143		0.6653	0.6653		0.6653	0.6653	94.4262	290.3768	384.8031	0.4492	5.2800e-003	397.6066
Energy	7.7200e-003	0.0660	0.0281	4.2000e-004		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003		84.2663	84.2663	1.6200e-003	1.5400e-003	84.7671
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
Total	**0.8495**	**0.3708**	**5.3599**	**0.0147**	**0.0000**	**0.6706**	**0.6706**	**0.0000**	**0.6706**	**0.6706**	**94.4262**	**374.6432**	**469.0694**	**0.4508**	**6.8200e-003**	**482.3737**

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	0.4099	0.2408	1.4102	1.5100e-003		0.0256	0.0256		0.0256	0.0256	0.0000	290.3768	290.3768	7.7800e-003	5.2800e-003	292.1448
Energy	7.7200e-003	0.0660	0.0281	4.2000e-004		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003		84.2663	84.2663	1.6200e-003	1.5400e-003	84.7671
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
Total	**0.4177**	**0.3068**	**1.4383**	**1.9300e-003**	**0.0000**	**0.0309**	**0.0309**	**0.0000**	**0.0309**	**0.0309**	**0.0000**	**374.6432**	**374.6432**	**9.4000e-003**	**6.8200e-003**	**376.9119**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**50.83**	**17.25**	**73.17**	**86.89**	**0.00**	**95.39**	**95.39**	**0.00**	**95.39**	**95.39**	**100.00**	**0.00**	**20.13**	**97.91**	**0.00**	**21.86**

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	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

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	7.7200e-003	0.0660	0.0281	4.2000e-004		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003		84.2663	84.2663	1.6200e-003	1.5400e-003	84.7671
NaturalGas Unmitigated	7.7200e-003	0.0660	0.0281	4.2000e-004		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003		84.2663	84.2663	1.6200e-003	1.5400e-003	84.7671

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					
Apartments Low Rise	716.264	7.7200e-003	0.0660	0.0281	4.2000e-004		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003		84.2663	84.2663	1.6200e-003	1.5400e-003	84.7671
Total		**7.7200e-003**	**0.0660**	**0.0281**	**4.2000e-004**		**5.3400e-003**	**5.3400e-003**		**5.3400e-003**	**5.3400e-003**		**84.2663**	**84.2663**	**1.6200e-003**	**1.5400e-003**	**84.7671**

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					
Apartments Low Rise	0.716264	7.7200e-003	0.0660	0.0281	4.2000e-004		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003		84.2663	84.2663	1.6200e-003	1.5400e-003	84.7671
Total		**7.7200e-003**	**0.0660**	**0.0281**	**4.2000e-004**		**5.3400e-003**	**5.3400e-003**		**5.3400e-003**	**5.3400e-003**		**84.2663**	**84.2663**	**1.6200e-003**	**1.5400e-003**	**84.7671**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4099	0.2408	1.4102	1.5100e-003		0.0256	0.0256		0.0256	0.0256	0.0000	290.3768	290.3768	7.7800e-003	5.2800e-003	292.1448
Unmitigated	0.8418	0.3047	5.3319	0.0143		0.6653	0.6653		0.6653	0.6653	94.4262	290.3768	384.8031	0.4492	5.2800e-003	397.6066

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	0.0274					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3168					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4582	0.2896	4.0176	0.0142		0.6580	0.6580		0.6580	0.6580	94.4262	288.0000	382.4262	0.4469	5.2800e-003	395.1732
Landscaping	0.0393	0.0152	1.3142	7.0000e-005		7.3200e-003	7.3200e-003		7.3200e-003	7.3200e-003		2.3768	2.3768	2.2600e-003		2.4334
Total	**0.8418**	**0.3047**	**5.3319**	**0.0143**		**0.6653**	**0.6653**		**0.6653**	**0.6653**	**94.4262**	**290.3768**	**384.8031**	**0.4492**	**5.2800e-003**	**397.6066**

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	0.0274					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3168					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0264	0.2256	0.0960	1.4400e-003		0.0182	0.0182		0.0182	0.0182	0.0000	288.0000	288.0000	5.5200e-003	5.2800e-003	289.7114
Landscaping	0.0393	0.0152	1.3142	7.0000e-005		7.3200e-003	7.3200e-003		7.3200e-003	7.3200e-003		2.3768	2.3768	2.2600e-003		2.4334
Total	**0.4099**	**0.2408**	**1.4102**	**1.5100e-003**		**0.0256**	**0.0256**		**0.0256**	**0.0256**	**0.0000**	**290.3768**	**290.3768**	**7.7800e-003**	**5.2800e-003**	**292.1448**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Low Rise Apts

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Low Rise	16.00	Dwelling Unit	1.00	16,000.00	46

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Long Beach Land Use Elements - Low Rise Apts - Los Angeles-South Coast County, Winter

Project Characteristics - Electricity assume 2040 RPS goal is same as Senate Bill 350 50% RPS goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Trips and VMT - No construction worker trip

On-road Fugitive Dust - No construction dust

Grading -

Vehicle Trips - No CalEEmod vehicle emissions, refer to separate VMT emission analysis.

Woodstoves - No wood stoves or fireplaces

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberWood	0.80	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	7.16	0.00
tblVehicleTrips	SU_TR	6.07	0.00
tblVehicleTrips	WD_TR	6.59	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.8418	0.3047	5.3319	0.0143		0.6653	0.6653		0.6653	0.6653	94.4262	290.3768	384.8031	0.4492	5.2800e-003	397.6066
Energy	7.7200e-003	0.0660	0.0281	4.2000e-004		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003		84.2663	84.2663	1.6200e-003	1.5400e-003	84.7671
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
Total	**0.8495**	**0.3708**	**5.3599**	**0.0147**	**0.0000**	**0.6706**	**0.6706**	**0.0000**	**0.6706**	**0.6706**	**94.4262**	**374.6432**	**469.0694**	**0.4508**	**6.8200e-003**	**482.3737**

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	0.4099	0.2408	1.4102	1.5100e-003		0.0256	0.0256		0.0256	0.0256	0.0000	290.3768	290.3768	7.7800e-003	5.2800e-003	292.1448
Energy	7.7200e-003	0.0660	0.0281	4.2000e-004		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003		84.2663	84.2663	1.6200e-003	1.5400e-003	84.7671
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
Total	**0.4177**	**0.3068**	**1.4383**	**1.9300e-003**	**0.0000**	**0.0309**	**0.0309**	**0.0000**	**0.0309**	**0.0309**	**0.0000**	**374.6432**	**374.6432**	**9.4000e-003**	**6.8200e-003**	**376.9119**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**50.83**	**17.25**	**73.17**	**86.89**	**0.00**	**95.39**	**95.39**	**0.00**	**95.39**	**95.39**	**100.00**	**0.00**	**20.13**	**97.91**	**0.00**	**21.86**

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	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

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	7.7200e-003	0.0660	0.0281	4.2000e-004		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003		84.2663	84.2663	1.6200e-003	1.5400e-003	84.7671
NaturalGas Unmitigated	7.7200e-003	0.0660	0.0281	4.2000e-004		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003		84.2663	84.2663	1.6200e-003	1.5400e-003	84.7671

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					
Apartments Low Rise	716.264	7.7200e-003	0.0660	0.0281	4.2000e-004		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003		84.2663	84.2663	1.6200e-003	1.5400e-003	84.7671
Total		**7.7200e-003**	**0.0660**	**0.0281**	**4.2000e-004**		**5.3400e-003**	**5.3400e-003**		**5.3400e-003**	**5.3400e-003**		**84.2663**	**84.2663**	**1.6200e-003**	**1.5400e-003**	**84.7671**

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					
Apartments Low Rise	0.716264	7.7200e-003	0.0660	0.0281	4.2000e-004		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003		84.2663	84.2663	1.6200e-003	1.5400e-003	84.7671
Total		**7.7200e-003**	**0.0660**	**0.0281**	**4.2000e-004**		**5.3400e-003**	**5.3400e-003**		**5.3400e-003**	**5.3400e-003**		**84.2663**	**84.2663**	**1.6200e-003**	**1.5400e-003**	**84.7671**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4099	0.2408	1.4102	1.5100e-003		0.0256	0.0256		0.0256	0.0256	0.0000	290.3768	290.3768	7.7800e-003	5.2800e-003	292.1448
Unmitigated	0.8418	0.3047	5.3319	0.0143		0.6653	0.6653		0.6653	0.6653	94.4262	290.3768	384.8031	0.4492	5.2800e-003	397.6066

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	0.0274					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3168					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4582	0.2896	4.0176	0.0142		0.6580	0.6580		0.6580	0.6580	94.4262	288.0000	382.4262	0.4469	5.2800e-003	395.1732
Landscaping	0.0393	0.0152	1.3142	7.0000e-005		7.3200e-003	7.3200e-003		7.3200e-003	7.3200e-003		2.3768	2.3768	2.2600e-003		2.4334
Total	**0.8418**	**0.3047**	**5.3319**	**0.0143**		**0.6653**	**0.6653**		**0.6653**	**0.6653**	**94.4262**	**290.3768**	**384.8031**	**0.4492**	**5.2800e-003**	**397.6066**

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	0.0274					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3168					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0264	0.2256	0.0960	1.4400e-003		0.0182	0.0182		0.0182	0.0182	0.0000	288.0000	288.0000	5.5200e-003	5.2800e-003	289.7114
Landscaping	0.0393	0.0152	1.3142	7.0000e-005		7.3200e-003	7.3200e-003		7.3200e-003	7.3200e-003		2.3768	2.3768	2.2600e-003		2.4334
Total	**0.4099**	**0.2408**	**1.4102**	**1.5100e-003**		**0.0256**	**0.0256**		**0.0256**	**0.0256**	**0.0000**	**290.3768**	**290.3768**	**7.7800e-003**	**5.2800e-003**	**292.1448**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Mid Rise Apts

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	38.00	Dwelling Unit	1.00	38,000.00	109

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Long Beach Land Use Elements - Mid Rise Apts - Los Angeles-South Coast County, Annual

Project Characteristics - Electricity assume 2040 RPS goal is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Trips and VMT - no construction worker trips

On-road Fugitive Dust - No construction dust emissions

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, use separate VMT emission analysis.

Woodstoves - No wood stoves or fireplaces.

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberWood	1.90	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	WD_TR	6.65	0.00
tblWoodstoves	NumberCatalytic	1.90	0.00
tblWoodstoves	NumberNoncatalytic	1.90	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1617	0.0112	0.3930	6.0000e-005		2.7100e-003	2.7100e-003		2.7100e-003	2.7100e-003	0.0000	8.3966	8.3966	7.6000e-004	1.4000e-004	8.4579
Energy	2.7400e-003	0.0235	9.9800e-003	1.5000e-004		1.9000e-003	1.9000e-003		1.9000e-003	1.9000e-003	0.0000	51.6719	51.6719	1.5700e-003	7.1000e-004	51.9219
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	3.5483	0.0000	3.5483	0.2097	0.0000	8.7907
Water						0.0000	0.0000		0.0000	0.0000	0.7855	7.8985	8.6840	0.0810	1.9700e-003	11.2971
Total	**0.1644**	**0.0347**	**0.4030**	**2.1000e-004**	**0.0000**	**4.6100e-003**	**4.6100e-003**	**0.0000**	**4.6100e-003**	**4.6100e-003**	**4.3338**	**67.9670**	**72.3007**	**0.2930**	**2.8200e-003**	**80.4676**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1617	0.0112	0.3930	6.0000e-005		2.7100e-003	2.7100e-003		2.7100e-003	2.7100e-003	0.0000	8.3966	8.3966	7.6000e-004	1.4000e-004	8.4579
Energy	2.7400e-003	0.0235	9.9800e-003	1.5000e-004		1.9000e-003	1.9000e-003		1.9000e-003	1.9000e-003	0.0000	51.6719	51.6719	1.5700e-003	7.1000e-004	51.9219
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	3.5483	0.0000	3.5483	0.2097	0.0000	8.7907
Water						0.0000	0.0000		0.0000	0.0000	0.7855	7.8985	8.6840	0.0810	1.9700e-003	11.2971
Total	**0.1644**	**0.0347**	**0.4030**	**2.1000e-004**	**0.0000**	**4.6100e-003**	**4.6100e-003**	**0.0000**	**4.6100e-003**	**4.6100e-003**	**4.3338**	**67.9670**	**72.3007**	**0.2930**	**2.8200e-003**	**80.4676**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	24.5068	24.5068	1.0500e-003	2.1000e-004	24.5954
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	24.5068	24.5068	1.0500e-003	2.1000e-004	24.5954
NaturalGas Mitigated	2.7400e-003	0.0235	9.9800e-003	1.5000e-004		1.9000e-003	1.9000e-003		1.9000e-003	1.9000e-003	0.0000	27.1651	27.1651	5.2000e-004	5.0000e-004	27.3265
NaturalGas Unmitigated	2.7400e-003	0.0235	9.9800e-003	1.5000e-004		1.9000e-003	1.9000e-003		1.9000e-003	1.9000e-003	0.0000	27.1651	27.1651	5.2000e-004	5.0000e-004	27.3265

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					
Apartments Mid Rise	509054	2.7400e-003	0.0235	9.9800e-003	1.5000e-004		1.9000e-003	1.9000e-003		1.9000e-003	1.9000e-003	0.0000	27.1651	27.1651	5.2000e-004	5.0000e-004	27.3265
Total		**2.7400e-003**	**0.0235**	**9.9800e-003**	**1.5000e-004**		**1.9000e-003**	**1.9000e-003**		**1.9000e-003**	**1.9000e-003**	**0.0000**	**27.1651**	**27.1651**	**5.2000e-004**	**5.0000e-004**	**27.3265**

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					
Apartments Mid Rise	509054	2.7400e-003	0.0235	9.9800e-003	1.5000e-004		1.9000e-003	1.9000e-003		1.9000e-003	1.9000e-003	0.0000	27.1651	27.1651	5.2000e-004	5.0000e-004	27.3265
Total		**2.7400e-003**	**0.0235**	**9.9800e-003**	**1.5000e-004**		**1.9000e-003**	**1.9000e-003**		**1.9000e-003**	**1.9000e-003**	**0.0000**	**27.1651**	**27.1651**	**5.2000e-004**	**5.0000e-004**	**27.3265**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	153830	24.5068	1.0500e-003	2.1000e-004	24.5954
Total		**24.5068**	**1.0500e-003**	**2.1000e-004**	**24.5954**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	153830	24.5068	1.0500e-003	2.1000e-004	24.5954
Total		**24.5068**	**1.0500e-003**	**2.1000e-004**	**24.5954**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1617	0.0112	0.3930	6.0000e-005		2.7100e-003	2.7100e-003		2.7100e-003	2.7100e-003	0.0000	8.3966	8.3966	7.6000e-004	1.4000e-004	8.4579
Unmitigated	0.1617	0.0112	0.3930	6.0000e-005		2.7100e-003	2.7100e-003		2.7100e-003	2.7100e-003	0.0000	8.3966	8.3966	7.6000e-004	1.4000e-004	8.4579

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	0.0119					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1373					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	7.8000e-004	6.7000e-003	2.8500e-003	4.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	7.7564	7.7564	1.5000e-004	1.4000e-004	7.8025
Landscaping	0.0117	4.5000e-003	0.3902	2.0000e-005		2.1700e-003	2.1700e-003		2.1700e-003	2.1700e-003	0.0000	0.6401	0.6401	6.1000e-004	0.0000	0.6554
Total	**0.1617**	**0.0112**	**0.3930**	**6.0000e-005**		**2.7100e-003**	**2.7100e-003**		**2.7100e-003**	**2.7100e-003**	**0.0000**	**8.3966**	**8.3966**	**7.6000e-004**	**1.4000e-004**	**8.4579**

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	0.0119					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1373					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	7.8000e-004	6.7000e-003	2.8500e-003	4.0000e-005		5.4000e-004	5.4000e-004		5.4000e-004	5.4000e-004	0.0000	7.7564	7.7564	1.5000e-004	1.4000e-004	7.8025
Landscaping	0.0117	4.5000e-003	0.3902	2.0000e-005		2.1700e-003	2.1700e-003		2.1700e-003	2.1700e-003	0.0000	0.6401	0.6401	6.1000e-004	0.0000	0.6554
Total	**0.1617**	**0.0112**	**0.3930**	**6.0000e-005**		**2.7100e-003**	**2.7100e-003**		**2.7100e-003**	**2.7100e-003**	**0.0000**	**8.3966**	**8.3966**	**7.6000e-004**	**1.4000e-004**	**8.4579**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	8.6840	0.0810	1.9700e-003	11.2971
Unmitigated	8.6840	0.0810	1.9700e-003	11.2971

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	2.47585 / 1.56086	8.6840	0.0810	1.9700e-003	11.2971
Total		**8.6840**	**0.0810**	**1.9700e-003**	**11.2971**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	2.47585 / 1.56086	8.6840	0.0810	1.9700e-003	11.2971
Total		**8.6840**	**0.0810**	**1.9700e-003**	**11.2971**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	3.5483	0.2097	0.0000	8.7907
Unmitigated	3.5483	0.2097	0.0000	8.7907

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	17.48	3.5483	0.2097	0.0000	8.7907
Total		**3.5483**	**0.2097**	**0.0000**	**8.7907**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	17.48	3.5483	0.2097	0.0000	8.7907
Total		**3.5483**	**0.2097**	**0.0000**	**8.7907**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Mid Rise Apts

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	38.00	Dwelling Unit	1.00	38,000.00	109

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Long Beach Land Use Elements - Mid Rise Apts - Los Angeles-South Coast County, Summer

Project Characteristics - Electricity assume 2040 RPS goal is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Trips and VMT - no construction worker trips

On-road Fugitive Dust - No construction dust emissions

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, use separate VMT emission analysis.

Woodstoves - No wood stoves or fireplaces.

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberWood	1.90	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	WD_TR	6.65	0.00
tblWoodstoves	NumberCatalytic	1.90	0.00
tblWoodstoves	NumberNoncatalytic	1.90	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9736	0.5718	3.3493	3.5900e-003		0.0607	0.0607		0.0607	0.0607	0.0000	689.6450	689.6450	0.0185	0.0125	693.8440
Energy	0.0150	0.1285	0.0547	8.2000e-004		0.0104	0.0104		0.0104	0.0104		164.0788	164.0788	3.1400e-003	3.0100e-003	165.0538
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
Total	**0.9886**	**0.7004**	**3.4040**	**4.4100e-003**	**0.0000**	**0.0711**	**0.0711**	**0.0000**	**0.0711**	**0.0711**	**0.0000**	**853.7238**	**853.7238**	**0.0216**	**0.0156**	**858.8978**

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	0.9736	0.5718	3.3493	3.5900e-003		0.0607	0.0607		0.0607	0.0607	0.0000	689.6450	689.6450	0.0185	0.0125	693.8440
Energy	0.0150	0.1285	0.0547	8.2000e-004		0.0104	0.0104		0.0104	0.0104		164.0788	164.0788	3.1400e-003	3.0100e-003	165.0538
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
Total	**0.9886**	**0.7004**	**3.4040**	**4.4100e-003**	**0.0000**	**0.0711**	**0.0711**	**0.0000**	**0.0711**	**0.0711**	**0.0000**	**853.7238**	**853.7238**	**0.0216**	**0.0156**	**858.8978**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

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	0.0150	0.1285	0.0547	8.2000e-004		0.0104	0.0104		0.0104	0.0104		164.0788	164.0788	3.1400e-003	3.0100e-003	165.0538
NaturalGas Unmitigated	0.0150	0.1285	0.0547	8.2000e-004		0.0104	0.0104		0.0104	0.0104		164.0788	164.0788	3.1400e-003	3.0100e-003	165.0538

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					
Apartments Mid Rise	1394.67	0.0150	0.1285	0.0547	8.2000e-004		0.0104	0.0104		0.0104	0.0104		164.0788	164.0788	3.1400e-003	3.0100e-003	165.0538
Total		**0.0150**	**0.1285**	**0.0547**	**8.2000e-004**		**0.0104**	**0.0104**		**0.0104**	**0.0104**		**164.0788**	**164.0788**	**3.1400e-003**	**3.0100e-003**	**165.0538**

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					
Apartments Mid Rise	1.39467	0.0150	0.1285	0.0547	8.2000e-004		0.0104	0.0104		0.0104	0.0104		164.0788	164.0788	3.1400e-003	3.0100e-003	165.0538
Total		**0.0150**	**0.1285**	**0.0547**	**8.2000e-004**		**0.0104**	**0.0104**		**0.0104**	**0.0104**		**164.0788**	**164.0788**	**3.1400e-003**	**3.0100e-003**	**165.0538**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.9736	0.5718	3.3493	3.5900e-003		0.0607	0.0607		0.0607	0.0607	0.0000	689.6450	689.6450	0.0185	0.0125	693.8440
Unmitigated	0.9736	0.5718	3.3493	3.5900e-003		0.0607	0.0607		0.0607	0.0607	0.0000	689.6450	689.6450	0.0185	0.0125	693.8440

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	0.0651					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7524					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0627	0.5358	0.2280	3.4200e-003		0.0433	0.0433		0.0433	0.0433	0.0000	684.0000	684.0000	0.0131	0.0125	688.0647
Landscaping	0.0934	0.0360	3.1213	1.7000e-004		0.0174	0.0174		0.0174	0.0174		5.6450	5.6450	5.3700e-003		5.7793
Total	**0.9736**	**0.5718**	**3.3493**	**3.5900e-003**		**0.0607**	**0.0607**		**0.0607**	**0.0607**	**0.0000**	**689.6450**	**689.6450**	**0.0185**	**0.0125**	**693.8440**

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	0.0651					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7524					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0627	0.5358	0.2280	3.4200e-003		0.0433	0.0433		0.0433	0.0433	0.0000	684.0000	684.0000	0.0131	0.0125	688.0647
Landscaping	0.0934	0.0360	3.1213	1.7000e-004		0.0174	0.0174		0.0174	0.0174		5.6450	5.6450	5.3700e-003		5.7793
Total	**0.9736**	**0.5718**	**3.3493**	**3.5900e-003**		**0.0607**	**0.0607**		**0.0607**	**0.0607**	**0.0000**	**689.6450**	**689.6450**	**0.0185**	**0.0125**	**693.8440**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Mid Rise Apts

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	38.00	Dwelling Unit	1.00	38,000.00	109

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Long Beach Land Use Elements - Mid Rise Apts - Los Angeles-South Coast County, Winter

Project Characteristics - Electricity assume 2040 RPS goal is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Trips and VMT - no construction worker trips

On-road Fugitive Dust - No construction dust emissions

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, use separate VMT emission analysis.

Woodstoves - No wood stoves or fireplaces.

Area Mitigation -

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberWood	1.90	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	WD_TR	6.65	0.00
tblWoodstoves	NumberCatalytic	1.90	0.00
tblWoodstoves	NumberNoncatalytic	1.90	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9736	0.5718	3.3493	3.5900e-003		0.0607	0.0607		0.0607	0.0607	0.0000	689.6450	689.6450	0.0185	0.0125	693.8440
Energy	0.0150	0.1285	0.0547	8.2000e-004		0.0104	0.0104		0.0104	0.0104		164.0788	164.0788	3.1400e-003	3.0100e-003	165.0538
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
Total	**0.9886**	**0.7004**	**3.4040**	**4.4100e-003**	**0.0000**	**0.0711**	**0.0711**	**0.0000**	**0.0711**	**0.0711**	**0.0000**	**853.7238**	**853.7238**	**0.0216**	**0.0156**	**858.8978**

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	0.9736	0.5718	3.3493	3.5900e-003		0.0607	0.0607		0.0607	0.0607	0.0000	689.6450	689.6450	0.0185	0.0125	693.8440
Energy	0.0150	0.1285	0.0547	8.2000e-004		0.0104	0.0104		0.0104	0.0104		164.0788	164.0788	3.1400e-003	3.0100e-003	165.0538
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
Total	**0.9886**	**0.7004**	**3.4040**	**4.4100e-003**	**0.0000**	**0.0711**	**0.0711**	**0.0000**	**0.0711**	**0.0711**	**0.0000**	**853.7238**	**853.7238**	**0.0216**	**0.0156**	**858.8978**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

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	0.0150	0.1285	0.0547	8.2000e-004		0.0104	0.0104		0.0104	0.0104		164.0788	164.0788	3.1400e-003	3.0100e-003	165.0538
NaturalGas Unmitigated	0.0150	0.1285	0.0547	8.2000e-004		0.0104	0.0104		0.0104	0.0104		164.0788	164.0788	3.1400e-003	3.0100e-003	165.0538

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					
Apartments Mid Rise	1394.67	0.0150	0.1285	0.0547	8.2000e-004		0.0104	0.0104		0.0104	0.0104		164.0788	164.0788	3.1400e-003	3.0100e-003	165.0538
Total		**0.0150**	**0.1285**	**0.0547**	**8.2000e-004**		**0.0104**	**0.0104**		**0.0104**	**0.0104**		**164.0788**	**164.0788**	**3.1400e-003**	**3.0100e-003**	**165.0538**

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					
Apartments Mid Rise	1.39467	0.0150	0.1285	0.0547	8.2000e-004		0.0104	0.0104		0.0104	0.0104		164.0788	164.0788	3.1400e-003	3.0100e-003	165.0538
Total		**0.0150**	**0.1285**	**0.0547**	**8.2000e-004**		**0.0104**	**0.0104**		**0.0104**	**0.0104**		**164.0788**	**164.0788**	**3.1400e-003**	**3.0100e-003**	**165.0538**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.9736	0.5718	3.3493	3.5900e-003		0.0607	0.0607		0.0607	0.0607	0.0000	689.6450	689.6450	0.0185	0.0125	693.8440
Unmitigated	0.9736	0.5718	3.3493	3.5900e-003		0.0607	0.0607		0.0607	0.0607	0.0000	689.6450	689.6450	0.0185	0.0125	693.8440

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	0.0651					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7524					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0627	0.5358	0.2280	3.4200e-003		0.0433	0.0433		0.0433	0.0433	0.0000	684.0000	684.0000	0.0131	0.0125	688.0647
Landscaping	0.0934	0.0360	3.1213	1.7000e-004		0.0174	0.0174		0.0174	0.0174		5.6450	5.6450	5.3700e-003		5.7793
Total	**0.9736**	**0.5718**	**3.3493**	**3.5900e-003**		**0.0607**	**0.0607**		**0.0607**	**0.0607**	**0.0000**	**689.6450**	**689.6450**	**0.0185**	**0.0125**	**693.8440**

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	0.0651					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.7524					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0627	0.5358	0.2280	3.4200e-003		0.0433	0.0433		0.0433	0.0433	0.0000	684.0000	684.0000	0.0131	0.0125	688.0647
Landscaping	0.0934	0.0360	3.1213	1.7000e-004		0.0174	0.0174		0.0174	0.0174		5.6450	5.6450	5.3700e-003		5.7793
Total	**0.9736**	**0.5718**	**3.3493**	**3.5900e-003**		**0.0607**	**0.0607**		**0.0607**	**0.0607**	**0.0000**	**689.6450**	**689.6450**	**0.0185**	**0.0125**	**693.8440**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Condos/Townhouse

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	16.00	Dwelling Unit	1.00	16,000.00	46

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS goal is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Woodstoves - No wood stoves or fireplaces

Area Mitigation -

Long Beach Land Use Elements - Condos/Townhouse - Los Angeles-South Coast County, Annual

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberWood	0.80	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblTripsAndVMT	WorkerTripNumber	0.00	8.00
tblVehicleTrips	ST_TR	5.67	0.00
tblVehicleTrips	SU_TR	4.84	0.00
tblVehicleTrips	WD_TR	5.81	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	3.0000e-005	2.0000e-005	2.3000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0448	0.0448	0.0000	0.0000	0.0448
Maximum	**3.0000e-005**	**2.0000e-005**	**2.3000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0448**	**0.0448**	**0.0000**	**0.0000**	**0.0448**

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					
2017	3.0000e-005	2.0000e-005	2.3000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0448	0.0448	0.0000	0.0000	0.0448
Maximum	**3.0000e-005**	**2.0000e-005**	**2.3000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0448**	**0.0448**	**0.0000**	**0.0000**	**0.0448**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0735	5.5200e-003	0.2145	1.9000e-004		9.1400e-003	9.1400e-003		9.1400e-003	9.1400e-003	1.0708	3.5354	4.6062	5.3200e-003	6.0000e-005	4.7571
Energy	1.4800e-003	0.0127	5.3900e-003	8.0000e-005		1.0200e-003	1.0200e-003		1.0200e-003	1.0200e-003	0.0000	27.5124	27.5124	8.3000e-004	3.8000e-004	27.6459
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	1.4940	0.0000	1.4940	0.0883	0.0000	3.7014
Water						0.0000	0.0000		0.0000	0.0000	0.3307	3.3257	3.6564	0.0341	8.3000e-004	4.7567
Total	**0.0749**	**0.0182**	**0.2199**	**2.7000e-004**	**0.0000**	**0.0102**	**0.0102**	**0.0000**	**0.0102**	**0.0102**	**2.8955**	**34.3735**	**37.2690**	**0.1286**	**1.2700e-003**	**40.8611**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0681	4.7200e-003	0.1655	3.0000e-005		1.1400e-003	1.1400e-003		1.1400e-003	1.1400e-003	0.0000	3.5354	3.5354	3.2000e-004	6.0000e-005	3.5612
Energy	1.4800e-003	0.0127	5.3900e-003	8.0000e-005		1.0200e-003	1.0200e-003		1.0200e-003	1.0200e-003	0.0000	27.5124	27.5124	8.3000e-004	3.8000e-004	27.6459
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	1.4940	0.0000	1.4940	0.0883	0.0000	3.7014
Water						0.0000	0.0000		0.0000	0.0000	0.3307	3.3257	3.6564	0.0341	8.3000e-004	4.7567
Total	**0.0696**	**0.0174**	**0.1709**	**1.1000e-004**	**0.0000**	**2.1600e-003**	**2.1600e-003**	**0.0000**	**2.1600e-003**	**2.1600e-003**	**1.8247**	**34.3735**	**36.1982**	**0.1236**	**1.2700e-003**	**39.6652**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**7.19**	**4.40**	**22.29**	**59.26**	**0.00**	**78.74**	**78.74**	**0.00**	**78.74**	**78.74**	**36.98**	**0.00**	**2.87**	**3.89**	**0.00**	**2.93**

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	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	3.0000e-005	2.0000e-005	2.3000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0448	0.0448	0.0000	0.0000	0.0448
Total	**3.0000e-005**	**2.0000e-005**	**2.3000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0448**	**0.0448**	**0.0000**	**0.0000**	**0.0448**

3.2 Site Preparation - 2017

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	3.0000e-005	2.0000e-005	2.3000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0448	0.0448	0.0000	0.0000	0.0448
Total	**3.0000e-005**	**2.0000e-005**	**2.3000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0448**	**0.0448**	**0.0000**	**0.0000**	**0.0448**

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	12.8467	12.8467	5.5000e-004	1.1000e-004	12.8931
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	12.8467	12.8467	5.5000e-004	1.1000e-004	12.8931
NaturalGas Mitigated	1.4800e-003	0.0127	5.3900e-003	8.0000e-005		1.0200e-003	1.0200e-003		1.0200e-003	1.0200e-003	0.0000	14.6657	14.6657	2.8000e-004	2.7000e-004	14.7529
NaturalGas Unmitigated	1.4800e-003	0.0127	5.3900e-003	8.0000e-005		1.0200e-003	1.0200e-003		1.0200e-003	1.0200e-003	0.0000	14.6657	14.6657	2.8000e-004	2.7000e-004	14.7529

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					
Condo/Townhouse	274825	1.4800e-003	0.0127	5.3900e-003	8.0000e-005		1.0200e-003	1.0200e-003		1.0200e-003	1.0200e-003	0.0000	14.6657	14.6657	2.8000e-004	2.7000e-004	14.7529
Total		**1.4800e-003**	**0.0127**	**5.3900e-003**	**8.0000e-005**		**1.0200e-003**	**1.0200e-003**		**1.0200e-003**	**1.0200e-003**	**0.0000**	**14.6657**	**14.6657**	**2.8000e-004**	**2.7000e-004**	**14.7529**

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					
Condo/Townhouse	274825	1.4800e-003	0.0127	5.3900e-003	8.0000e-005		1.0200e-003	1.0200e-003		1.0200e-003	1.0200e-003	0.0000	14.6657	14.6657	2.8000e-004	2.7000e-004	14.7529
Total		**1.4800e-003**	**0.0127**	**5.3900e-003**	**8.0000e-005**		**1.0200e-003**	**1.0200e-003**		**1.0200e-003**	**1.0200e-003**	**0.0000**	**14.6657**	**14.6657**	**2.8000e-004**	**2.7000e-004**	**14.7529**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	80639	12.8467	5.5000e-004	1.1000e-004	12.8931
Total		**12.8467**	**5.5000e-004**	**1.1000e-004**	**12.8931**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	80639	12.8467	5.5000e-004	1.1000e-004	12.8931
Total		**12.8467**	**5.5000e-004**	**1.1000e-004**	**12.8931**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0681	4.7200e-003	0.1655	3.0000e-005		1.1400e-003	1.1400e-003		1.1400e-003	1.1400e-003	0.0000	3.5354	3.5354	3.2000e-004	6.0000e-005	3.5612
Unmitigated	0.0735	5.5200e-003	0.2145	1.9000e-004		9.1400e-003	9.1400e-003		9.1400e-003	9.1400e-003	1.0708	3.5354	4.6062	5.3200e-003	6.0000e-005	4.7571

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	5.0100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0578					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	5.7300e-003	3.6200e-003	0.0502	1.8000e-004		8.2200e-003	8.2200e-003		8.2200e-003	8.2200e-003	1.0708	3.2659	4.3366	5.0700e-003	6.0000e-005	4.4812
Landscaping	4.9100e-003	1.9000e-003	0.1643	1.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	0.2695	0.2695	2.6000e-004	0.0000	0.2759
Total	**0.0735**	**5.5200e-003**	**0.2145**	**1.9000e-004**		**9.1400e-003**	**9.1400e-003**		**9.1400e-003**	**9.1400e-003**	**1.0708**	**3.5354**	**4.6062**	**5.3300e-003**	**6.0000e-005**	**4.7571**

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	5.0100e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0578					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	3.3000e-004	2.8200e-003	1.2000e-003	2.0000e-005		2.3000e-004	2.3000e-004		2.3000e-004	2.3000e-004	0.0000	3.2659	3.2659	6.0000e-005	6.0000e-005	3.2853
Landscaping	4.9100e-003	1.9000e-003	0.1643	1.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	0.2695	0.2695	2.6000e-004	0.0000	0.2759
Total	**0.0681**	**4.7200e-003**	**0.1655**	**3.0000e-005**		**1.1500e-003**	**1.1500e-003**		**1.1500e-003**	**1.1500e-003**	**0.0000**	**3.5354**	**3.5354**	**3.2000e-004**	**6.0000e-005**	**3.5612**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	3.6564	0.0341	8.3000e-004	4.7567
Unmitigated	3.6564	0.0341	8.3000e-004	4.7567

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	1.04246 / 0.657206	3.6564	0.0341	8.3000e-004	4.7567
Total		**3.6564**	**0.0341**	**8.3000e-004**	**4.7567**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	1.04246 / 0.657206	3.6564	0.0341	8.3000e-004	4.7567
Total		**3.6564**	**0.0341**	**8.3000e-004**	**4.7567**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.4940	0.0883	0.0000	3.7014
Unmitigated	1.4940	0.0883	0.0000	3.7014

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	7.36	1.4940	0.0883	0.0000	3.7014
Total		**1.4940**	**0.0883**	**0.0000**	**3.7014**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	7.36	1.4940	0.0883	0.0000	3.7014
Total		**1.4940**	**0.0883**	**0.0000**	**3.7014**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Condos/Townhouse

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	16.00	Dwelling Unit	1.00	16,000.00	46

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS goal is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Woodstoves - No wood stoves or fireplaces

Area Mitigation -

Long Beach Land Use Elements - Condos/Townhouse - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberWood	0.80	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblTripsAndVMT	WorkerTripNumber	0.00	8.00
tblVehicleTrips	ST_TR	5.67	0.00
tblVehicleTrips	SU_TR	4.84	0.00
tblVehicleTrips	WD_TR	5.81	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0500	0.0384	0.4925	1.0400e-003	0.0894	8.3000e-004	0.0903	0.0237	7.7000e-004	0.0245	0.0000	103.1134	103.1134	4.2800e-003	0.0000	103.2204
Maximum	**0.0500**	**0.0384**	**0.4925**	**1.0400e-003**	**0.0894**	**8.3000e-004**	**0.0903**	**0.0237**	**7.7000e-004**	**0.0245**	**0.0000**	**103.1134**	**103.1134**	**4.2800e-003**	**0.0000**	**103.2204**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0500	0.0384	0.4925	1.0400e-003	0.0894	8.3000e-004	0.0903	0.0237	7.7000e-004	0.0245	0.0000	103.1134	103.1134	4.2800e-003	0.0000	103.2204
Maximum	**0.0500**	**0.0384**	**0.4925**	**1.0400e-003**	**0.0894**	**8.3000e-004**	**0.0903**	**0.0237**	**7.7000e-004**	**0.0245**	**0.0000**	**103.1134**	**103.1134**	**4.2800e-003**	**0.0000**	**103.2204**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.8418	0.3047	5.3319	0.0143		0.6653	0.6653		0.6653	0.6653	94.4262	290.3768	384.8031	0.4492	5.2800e-003	397.6066
Energy	8.1200e-003	0.0694	0.0295	4.4000e-004		5.6100e-003	5.6100e-003		5.6100e-003	5.6100e-003		88.5818	88.5818	1.7000e-003	1.6200e-003	89.1082
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
Total	**0.8499**	**0.3741**	**5.3614**	**0.0147**	**0.0000**	**0.6709**	**0.6709**	**0.0000**	**0.6709**	**0.6709**	**94.4262**	**378.9586**	**473.3848**	**0.4509**	**6.9000e-003**	**486.7148**

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	0.4099	0.2408	1.4102	1.5100e-003		0.0256	0.0256		0.0256	0.0256	0.0000	290.3768	290.3768	7.7800e-003	5.2800e-003	292.1448
Energy	8.1200e-003	0.0694	0.0295	4.4000e-004		5.6100e-003	5.6100e-003		5.6100e-003	5.6100e-003		88.5818	88.5818	1.7000e-003	1.6200e-003	89.1082
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
Total	**0.4181**	**0.3102**	**1.4398**	**1.9500e-003**	**0.0000**	**0.0312**	**0.0312**	**0.0000**	**0.0312**	**0.0312**	**0.0000**	**378.9586**	**378.9586**	**9.4800e-003**	**6.9000e-003**	**381.2530**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**50.81**	**17.10**	**73.15**	**86.77**	**0.00**	**95.35**	**95.35**	**0.00**	**95.35**	**95.35**	**100.00**	**0.00**	**19.95**	**97.90**	**0.00**	**21.67**

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	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0500	0.0384	0.4925	1.0400e-003	0.0894	8.3000e-004	0.0903	0.0237	7.7000e-004	0.0245		103.1134	103.1134	4.2800e-003		103.2204
Total	**0.0500**	**0.0384**	**0.4925**	**1.0400e-003**	**0.0894**	**8.3000e-004**	**0.0903**	**0.0237**	**7.7000e-004**	**0.0245**		**103.1134**	**103.1134**	**4.2800e-003**		**103.2204**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0500	0.0384	0.4925	1.0400e-003	0.0894	8.3000e-004	0.0903	0.0237	7.7000e-004	0.0245		103.1134	103.1134	4.2800e-003		103.2204
Total	**0.0500**	**0.0384**	**0.4925**	**1.0400e-003**	**0.0894**	**8.3000e-004**	**0.0903**	**0.0237**	**7.7000e-004**	**0.0245**		**103.1134**	**103.1134**	**4.2800e-003**		**103.2204**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

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	8.1200e-003	0.0694	0.0295	4.4000e-004		5.6100e-003	5.6100e-003		5.6100e-003	5.6100e-003		88.5818	88.5818	1.7000e-003	1.6200e-003	89.1082
NaturalGas Unmitigated	8.1200e-003	0.0694	0.0295	4.4000e-004		5.6100e-003	5.6100e-003		5.6100e-003	5.6100e-003		88.5818	88.5818	1.7000e-003	1.6200e-003	89.1082

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	752.945	8.1200e-003	0.0694	0.0295	4.4000e-004		5.6100e-003	5.6100e-003		5.6100e-003	5.6100e-003		88.5818	88.5818	1.7000e-003	1.6200e-003	89.1082
Total		**8.1200e-003**	**0.0694**	**0.0295**	**4.4000e-004**		**5.6100e-003**	**5.6100e-003**		**5.6100e-003**	**5.6100e-003**		**88.5818**	**88.5818**	**1.7000e-003**	**1.6200e-003**	**89.1082**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	0.752945	8.1200e-003	0.0694	0.0295	4.4000e-004		5.6100e-003	5.6100e-003		5.6100e-003	5.6100e-003		88.5818	88.5818	1.7000e-003	1.6200e-003	89.1082
Total		**8.1200e-003**	**0.0694**	**0.0295**	**4.4000e-004**		**5.6100e-003**	**5.6100e-003**		**5.6100e-003**	**5.6100e-003**		**88.5818**	**88.5818**	**1.7000e-003**	**1.6200e-003**	**89.1082**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4099	0.2408	1.4102	1.5100e-003		0.0256	0.0256		0.0256	0.0256	0.0000	290.3768	290.3768	7.7800e-003	5.2800e-003	292.1448
Unmitigated	0.8418	0.3047	5.3319	0.0143		0.6653	0.6653		0.6653	0.6653	94.4262	290.3768	384.8031	0.4492	5.2800e-003	397.6066

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	0.0274					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3168					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4582	0.2896	4.0176	0.0142		0.6580	0.6580		0.6580	0.6580	94.4262	288.0000	382.4262	0.4469	5.2800e-003	395.1732
Landscaping	0.0393	0.0152	1.3142	7.0000e-005		7.3200e-003	7.3200e-003		7.3200e-003	7.3200e-003		2.3768	2.3768	2.2600e-003		2.4334
Total	**0.8418**	**0.3047**	**5.3319**	**0.0143**		**0.6653**	**0.6653**		**0.6653**	**0.6653**	**94.4262**	**290.3768**	**384.8031**	**0.4492**	**5.2800e-003**	**397.6066**

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	0.0274					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3168					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0264	0.2256	0.0960	1.4400e-003		0.0182	0.0182		0.0182	0.0182	0.0000	288.0000	288.0000	5.5200e-003	5.2800e-003	289.7114
Landscaping	0.0393	0.0152	1.3142	7.0000e-005		7.3200e-003	7.3200e-003		7.3200e-003	7.3200e-003		2.3768	2.3768	2.2600e-003		2.4334
Total	**0.4099**	**0.2408**	**1.4102**	**1.5100e-003**		**0.0256**	**0.0256**		**0.0256**	**0.0256**	**0.0000**	**290.3768**	**290.3768**	**7.7800e-003**	**5.2800e-003**	**292.1448**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Condos/Townhouse

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	16.00	Dwelling Unit	1.00	16,000.00	46

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS goal is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Woodstoves - No wood stoves or fireplaces

Area Mitigation -

Long Beach Land Use Elements - Condos/Townhouse - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblFireplaces	NumberWood	0.80	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblTripsAndVMT	WorkerTripNumber	0.00	8.00
tblVehicleTrips	ST_TR	5.67	0.00
tblVehicleTrips	SU_TR	4.84	0.00
tblVehicleTrips	WD_TR	5.81	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0553	0.0425	0.4559	9.8000e-004	0.0894	8.3000e-004	0.0903	0.0237	7.7000e-004	0.0245	0.0000	97.1130	97.1130	4.0600e-003	0.0000	97.2145
Maximum	**0.0553**	**0.0425**	**0.4559**	**9.8000e-004**	**0.0894**	**8.3000e-004**	**0.0903**	**0.0237**	**7.7000e-004**	**0.0245**	**0.0000**	**97.1130**	**97.1130**	**4.0600e-003**	**0.0000**	**97.2145**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0553	0.0425	0.4559	9.8000e-004	0.0894	8.3000e-004	0.0903	0.0237	7.7000e-004	0.0245	0.0000	97.1130	97.1130	4.0600e-003	0.0000	97.2145
Maximum	**0.0553**	**0.0425**	**0.4559**	**9.8000e-004**	**0.0894**	**8.3000e-004**	**0.0903**	**0.0237**	**7.7000e-004**	**0.0245**	**0.0000**	**97.1130**	**97.1130**	**4.0600e-003**	**0.0000**	**97.2145**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.8418	0.3047	5.3319	0.0143		0.6653	0.6653		0.6653	0.6653	94.4262	290.3768	384.8031	0.4492	5.2800e-003	397.6066
Energy	8.1200e-003	0.0694	0.0295	4.4000e-004		5.6100e-003	5.6100e-003		5.6100e-003	5.6100e-003		88.5818	88.5818	1.7000e-003	1.6200e-003	89.1082
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
Total	**0.8499**	**0.3741**	**5.3614**	**0.0147**	**0.0000**	**0.6709**	**0.6709**	**0.0000**	**0.6709**	**0.6709**	**94.4262**	**378.9586**	**473.3848**	**0.4509**	**6.9000e-003**	**486.7148**

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	0.4099	0.2408	1.4102	1.5100e-003		0.0256	0.0256		0.0256	0.0256	0.0000	290.3768	290.3768	7.7800e-003	5.2800e-003	292.1448
Energy	8.1200e-003	0.0694	0.0295	4.4000e-004		5.6100e-003	5.6100e-003		5.6100e-003	5.6100e-003		88.5818	88.5818	1.7000e-003	1.6200e-003	89.1082
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
Total	**0.4181**	**0.3102**	**1.4398**	**1.9500e-003**	**0.0000**	**0.0312**	**0.0312**	**0.0000**	**0.0312**	**0.0312**	**0.0000**	**378.9586**	**378.9586**	**9.4800e-003**	**6.9000e-003**	**381.2530**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**50.81**	**17.10**	**73.15**	**86.77**	**0.00**	**95.35**	**95.35**	**0.00**	**95.35**	**95.35**	**100.00**	**0.00**	**19.95**	**97.90**	**0.00**	**21.67**

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	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0553	0.0425	0.4559	9.8000e-004	0.0894	8.3000e-004	0.0903	0.0237	7.7000e-004	0.0245		97.1130	97.1130	4.0600e-003		97.2145
Total	**0.0553**	**0.0425**	**0.4559**	**9.8000e-004**	**0.0894**	**8.3000e-004**	**0.0903**	**0.0237**	**7.7000e-004**	**0.0245**		**97.1130**	**97.1130**	**4.0600e-003**		**97.2145**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0553	0.0425	0.4559	9.8000e-004	0.0894	8.3000e-004	0.0903	0.0237	7.7000e-004	0.0245		97.1130	97.1130	4.0600e-003		97.2145
Total	**0.0553**	**0.0425**	**0.4559**	**9.8000e-004**	**0.0894**	**8.3000e-004**	**0.0903**	**0.0237**	**7.7000e-004**	**0.0245**		**97.1130**	**97.1130**	**4.0600e-003**		**97.2145**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

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	8.1200e-003	0.0694	0.0295	4.4000e-004		5.6100e-003	5.6100e-003		5.6100e-003	5.6100e-003		88.5818	88.5818	1.7000e-003	1.6200e-003	89.1082
NaturalGas Unmitigated	8.1200e-003	0.0694	0.0295	4.4000e-004		5.6100e-003	5.6100e-003		5.6100e-003	5.6100e-003		88.5818	88.5818	1.7000e-003	1.6200e-003	89.1082

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	752.945	8.1200e-003	0.0694	0.0295	4.4000e-004		5.6100e-003	5.6100e-003		5.6100e-003	5.6100e-003		88.5818	88.5818	1.7000e-003	1.6200e-003	89.1082
Total		**8.1200e-003**	**0.0694**	**0.0295**	**4.4000e-004**		**5.6100e-003**	**5.6100e-003**		**5.6100e-003**	**5.6100e-003**		**88.5818**	**88.5818**	**1.7000e-003**	**1.6200e-003**	**89.1082**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	0.752945	8.1200e-003	0.0694	0.0295	4.4000e-004		5.6100e-003	5.6100e-003		5.6100e-003	5.6100e-003		88.5818	88.5818	1.7000e-003	1.6200e-003	89.1082
Total		**8.1200e-003**	**0.0694**	**0.0295**	**4.4000e-004**		**5.6100e-003**	**5.6100e-003**		**5.6100e-003**	**5.6100e-003**		**88.5818**	**88.5818**	**1.7000e-003**	**1.6200e-003**	**89.1082**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4099	0.2408	1.4102	1.5100e-003		0.0256	0.0256		0.0256	0.0256	0.0000	290.3768	290.3768	7.7800e-003	5.2800e-003	292.1448
Unmitigated	0.8418	0.3047	5.3319	0.0143		0.6653	0.6653		0.6653	0.6653	94.4262	290.3768	384.8031	0.4492	5.2800e-003	397.6066

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	0.0274					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3168					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.4582	0.2896	4.0176	0.0142		0.6580	0.6580		0.6580	0.6580	94.4262	288.0000	382.4262	0.4469	5.2800e-003	395.1732
Landscaping	0.0393	0.0152	1.3142	7.0000e-005		7.3200e-003	7.3200e-003		7.3200e-003	7.3200e-003		2.3768	2.3768	2.2600e-003		2.4334
Total	**0.8418**	**0.3047**	**5.3319**	**0.0143**		**0.6653**	**0.6653**		**0.6653**	**0.6653**	**94.4262**	**290.3768**	**384.8031**	**0.4492**	**5.2800e-003**	**397.6066**

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	0.0274					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3168					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0264	0.2256	0.0960	1.4400e-003		0.0182	0.0182		0.0182	0.0182	0.0000	288.0000	288.0000	5.5200e-003	5.2800e-003	289.7114
Landscaping	0.0393	0.0152	1.3142	7.0000e-005		7.3200e-003	7.3200e-003		7.3200e-003	7.3200e-003		2.3768	2.3768	2.2600e-003		2.4334
Total	**0.4099**	**0.2408**	**1.4102**	**1.5100e-003**		**0.0256**	**0.0256**		**0.0256**	**0.0256**	**0.0000**	**290.3768**	**290.3768**	**7.7800e-003**	**5.2800e-003**	**292.1448**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - City Park

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	1.00	Acre	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Trips and VMT - No construction trip

On-road Fugitive Dust - No construction dust

Grading -

Vehicle Trips - No CalEEMod vehicle emissions, refer to separate VMT emission analysis

Long Beach Land Use Elements - City Park - Los Angeles-South Coast County, Annual

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	9.9000e-004	0.0111	4.4300e-003	1.0000e-005	2.9400e-003	5.2000e-004	3.4700e-003	1.4900e-003	4.8000e-004	1.9700e-003	0.0000	0.8450	0.8450	2.5000e-004	0.0000	0.8512
Maximum	**9.9000e-004**	**0.0111**	**4.4300e-003**	**1.0000e-005**	**2.9400e-003**	**5.2000e-004**	**3.4700e-003**	**1.4900e-003**	**4.8000e-004**	**1.9700e-003**	**0.0000**	**0.8450**	**0.8450**	**2.5000e-004**	**0.0000**	**0.8512**

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					
2017	9.9000e-004	0.0111	4.4300e-003	1.0000e-005	2.9400e-003	5.2000e-004	3.4700e-003	1.4900e-003	4.8000e-004	1.9700e-003	0.0000	0.8450	0.8450	2.5000e-004	0.0000	0.8512
Maximum	**9.9000e-004**	**0.0111**	**4.4300e-003**	**1.0000e-005**	**2.9400e-003**	**5.2000e-004**	**3.4700e-003**	**1.4900e-003**	**4.8000e-004**	**1.9700e-003**	**0.0000**	**0.8450**	**0.8450**	**2.5000e-004**	**0.0000**	**0.8512**

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

Long Beach Land Use Elements - City Park - Los Angeles-South Coast County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0411	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
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	0.0000
Mobile	9.9000e-004	6.8700e-003	0.0128	7.0000e-005	7.6400e-003	3.0000e-005	7.6700e-003	2.0500e-003	3.0000e-005	2.0800e-003	0.0000	6.6977	6.6977	2.6000e-004	0.0000	6.7042
Waste						0.0000	0.0000		0.0000	0.0000	0.0183	0.0000	0.0183	1.0800e-003	0.0000	0.0453
Water						0.0000	0.0000		0.0000	0.0000	0.0000	2.1089	2.1089	9.0000e-005	2.0000e-005	2.1165
Total	**0.0421**	**6.8700e-003**	**0.0128**	**7.0000e-005**	**7.6400e-003**	**3.0000e-005**	**7.6700e-003**	**2.0500e-003**	**3.0000e-005**	**2.0800e-003**	**0.0183**	**8.8066**	**8.8249**	**1.4300e-003**	**2.0000e-005**	**8.8660**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0411	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
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	0.0000
Mobile	9.9000e-004	6.8700e-003	0.0128	7.0000e-005	7.6400e-003	3.0000e-005	7.6700e-003	2.0500e-003	3.0000e-005	2.0800e-003	0.0000	6.6977	6.6977	2.6000e-004	0.0000	6.7042
Waste						0.0000	0.0000		0.0000	0.0000	0.0183	0.0000	0.0183	1.0800e-003	0.0000	0.0453
Water						0.0000	0.0000		0.0000	0.0000	0.0000	2.1089	2.1089	9.0000e-005	2.0000e-005	2.1165
Total	**0.0421**	**6.8700e-003**	**0.0128**	**7.0000e-005**	**7.6400e-003**	**3.0000e-005**	**7.6700e-003**	**2.0500e-003**	**3.0000e-005**	**2.0800e-003**	**0.0183**	**8.8066**	**8.8249**	**1.4300e-003**	**2.0000e-005**	**8.8660**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	5	1	

Acres of Grading (Site Preparation Phase): 0.5

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
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.9000e-003	0.0000	2.9000e-003	1.4800e-003	0.0000	1.4800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-004	0.0111	4.2000e-003	1.0000e-005		5.2000e-004	5.2000e-004		4.8000e-004	4.8000e-004	0.0000	0.8002	0.8002	2.5000e-004	0.0000	0.8064
Total	**9.6000e-004**	**0.0111**	**4.2000e-003**	**1.0000e-005**	**2.9000e-003**	**5.2000e-004**	**3.4200e-003**	**1.4800e-003**	**4.8000e-004**	**1.9600e-003**	**0.0000**	**0.8002**	**0.8002**	**2.5000e-004**	**0.0000**	**0.8064**

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	3.0000e-005	2.0000e-005	2.3000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0448	0.0448	0.0000	0.0000	0.0448
Total	**3.0000e-005**	**2.0000e-005**	**2.3000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0448**	**0.0448**	**0.0000**	**0.0000**	**0.0448**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.9000e-003	0.0000	2.9000e-003	1.4800e-003	0.0000	1.4800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-004	0.0111	4.2000e-003	1.0000e-005		5.2000e-004	5.2000e-004		4.8000e-004	4.8000e-004	0.0000	0.8002	0.8002	2.5000e-004	0.0000	0.8064
Total	**9.6000e-004**	**0.0111**	**4.2000e-003**	**1.0000e-005**	**2.9000e-003**	**5.2000e-004**	**3.4200e-003**	**1.4800e-003**	**4.8000e-004**	**1.9600e-003**	**0.0000**	**0.8002**	**0.8002**	**2.5000e-004**	**0.0000**	**0.8064**

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	3.0000e-005	2.0000e-005	2.3000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0448	0.0448	0.0000	0.0000	0.0448
Total	**3.0000e-005**	**2.0000e-005**	**2.3000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0448**	**0.0448**	**0.0000**	**0.0000**	**0.0448**

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	9.9000e-004	6.8700e-003	0.0128	7.0000e-005	7.6400e-003	3.0000e-005	7.6700e-003	2.0500e-003	3.0000e-005	2.0800e-003	0.0000	6.6977	6.6977	2.6000e-004	0.0000	6.7042
Unmitigated	9.9000e-004	6.8700e-003	0.0128	7.0000e-005	7.6400e-003	3.0000e-005	7.6700e-003	2.0500e-003	3.0000e-005	2.0800e-003	0.0000	6.6977	6.6977	2.6000e-004	0.0000	6.7042

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	1.89	22.75	16.74	20,118	20,118
Total	1.89	22.75	16.74	20,118	20,118

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0411	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Unmitigated	0.0411	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005

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	4.6400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0365					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	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Total	**0.0411**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

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	4.6400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0365					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	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Total	**0.0411**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.1089	9.0000e-005	2.0000e-005	2.1165
Unmitigated	2.1089	9.0000e-005	2.0000e-005	2.1165

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 1.19148	2.1089	9.0000e-005	2.0000e-005	2.1165
Total		**2.1089**	**9.0000e-005**	**2.0000e-005**	**2.1165**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 1.19148	2.1089	9.0000e-005	2.0000e-005	2.1165
Total		**2.1089**	**9.0000e-005**	**2.0000e-005**	**2.1165**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0183	1.0800e-003	0.0000	0.0453
Unmitigated	0.0183	1.0800e-003	0.0000	0.0453

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.09	0.0183	1.0800e-003	0.0000	0.0453
Total		**0.0183**	**1.0800e-003**	**0.0000**	**0.0453**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.09	0.0183	1.0800e-003	0.0000	0.0453
Total		**0.0183**	**1.0800e-003**	**0.0000**	**0.0453**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - City Park

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	1.00	Acre	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Trips and VMT - No construction trip

On-road Fugitive Dust - No construction dust

Grading -

Vehicle Trips - No CalEEMod vehicle emissions, refer to separate VMT emission analysis

Long Beach Land Use Elements - City Park - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	1.9797	22.2490	8.8941	0.0183	5.8890	1.0459	6.9349	2.9774	0.9622	3.9396	0.0000	1,867.3515	1,867.3515	0.5448	0.0000	1,880.9725
Maximum	**1.9797**	**22.2490**	**8.8941**	**0.0183**	**5.8890**	**1.0459**	**6.9349**	**2.9774**	**0.9622**	**3.9396**	**0.0000**	**1,867.3515**	**1,867.3515**	**0.5448**	**0.0000**	**1,880.9725**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	1.9797	22.2490	8.8941	0.0183	5.8890	1.0459	6.9349	2.9774	0.9622	3.9396	0.0000	1,867.3515	1,867.3515	0.5448	0.0000	1,880.9725
Maximum	**1.9797**	**22.2490**	**8.8941**	**0.0183**	**5.8890**	**1.0459**	**6.9349**	**2.9774**	**0.9622**	**3.9396**	**0.0000**	**1,867.3515**	**1,867.3515**	**0.5448**	**0.0000**	**1,880.9725**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2251	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-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	0.0187	0.1203	0.2360	1.3200e-003	0.1393	5.5000e-004	0.1398	0.0373	5.1000e-004	0.0378		136.3268	136.3268	5.0600e-003		136.4534
Total	**0.2438**	**0.1203**	**0.2361**	**1.3200e-003**	**0.1393**	**5.5000e-004**	**0.1398**	**0.0373**	**5.1000e-004**	**0.0378**		**136.3270**	**136.3270**	**5.0600e-003**	**0.0000**	**136.4536**

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	0.2251	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-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	0.0187	0.1203	0.2360	1.3200e-003	0.1393	5.5000e-004	0.1398	0.0373	5.1000e-004	0.0378		136.3268	136.3268	5.0600e-003		136.4534
Total	**0.2438**	**0.1203**	**0.2361**	**1.3200e-003**	**0.1393**	**5.5000e-004**	**0.1398**	**0.0373**	**5.1000e-004**	**0.0378**		**136.3270**	**136.3270**	**5.0600e-003**	**0.0000**	**136.4536**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	5	1	

Acres of Grading (Site Preparation Phase): 0.5

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
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.9297	22.2106	8.4016	0.0172		1.0451	1.0451		0.9615	0.9615		1,764.2381	1,764.2381	0.5406		1,777.7521
Total	**1.9297**	**22.2106**	**8.4016**	**0.0172**	**5.7996**	**1.0451**	**6.8446**	**2.9537**	**0.9615**	**3.9152**		**1,764.2381**	**1,764.2381**	**0.5406**		**1,777.7521**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0500	0.0384	0.4925	1.0400e-003	0.0894	8.3000e-004	0.0903	0.0237	7.7000e-004	0.0245		103.1134	103.1134	4.2800e-003		103.2204
Total	**0.0500**	**0.0384**	**0.4925**	**1.0400e-003**	**0.0894**	**8.3000e-004**	**0.0903**	**0.0237**	**7.7000e-004**	**0.0245**		**103.1134**	**103.1134**	**4.2800e-003**		**103.2204**

3.2 Site Preparation - 2017

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					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.9297	22.2106	8.4016	0.0172		1.0451	1.0451		0.9615	0.9615	0.0000	1,764.2381	1,764.2381	0.5406		1,777.7521
Total	**1.9297**	**22.2106**	**8.4016**	**0.0172**	**5.7996**	**1.0451**	**6.8446**	**2.9537**	**0.9615**	**3.9152**	**0.0000**	**1,764.2381**	**1,764.2381**	**0.5406**		**1,777.7521**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0500	0.0384	0.4925	1.0400e-003	0.0894	8.3000e-004	0.0903	0.0237	7.7000e-004	0.0245		103.1134	103.1134	4.2800e-003		103.2204
Total	**0.0500**	**0.0384**	**0.4925**	**1.0400e-003**	**0.0894**	**8.3000e-004**	**0.0903**	**0.0237**	**7.7000e-004**	**0.0245**		**103.1134**	**103.1134**	**4.2800e-003**		**103.2204**

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	0.0187	0.1203	0.2360	1.3200e-003	0.1393	5.5000e-004	0.1398	0.0373	5.1000e-004	0.0378		136.3268	136.3268	5.0600e-003		136.4534
Unmitigated	0.0187	0.1203	0.2360	1.3200e-003	0.1393	5.5000e-004	0.1398	0.0373	5.1000e-004	0.0378		136.3268	136.3268	5.0600e-003		136.4534

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	1.89	22.75	16.74	20,118	20,118
Total	1.89	22.75	16.74	20,118	20,118

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2251	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	0.2251	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

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	0.0254					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1997					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**0.2251**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

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	0.0254					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1997					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**0.2251**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - City Park

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	1.00	Acre	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Trips and VMT - No construction trip

On-road Fugitive Dust - No construction dust

Grading -

Vehicle Trips - No CalEEMod vehicle emissions, refer to separate VMT emission analysis

Long Beach Land Use Elements - City Park - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	1.9850	22.2531	8.8576	0.0182	5.8890	1.0459	6.9349	2.9774	0.9622	3.9396	0.0000	1,861.3511	1,861.3511	0.5446	0.0000	1,874.9666
Maximum	**1.9850**	**22.2531**	**8.8576**	**0.0182**	**5.8890**	**1.0459**	**6.9349**	**2.9774**	**0.9622**	**3.9396**	**0.0000**	**1,861.3511**	**1,861.3511**	**0.5446**	**0.0000**	**1,874.9666**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	1.9850	22.2531	8.8576	0.0182	5.8890	1.0459	6.9349	2.9774	0.9622	3.9396	0.0000	1,861.3511	1,861.3511	0.5446	0.0000	1,874.9666
Maximum	**1.9850**	**22.2531**	**8.8576**	**0.0182**	**5.8890**	**1.0459**	**6.9349**	**2.9774**	**0.9622**	**3.9396**	**0.0000**	**1,861.3511**	**1,861.3511**	**0.5446**	**0.0000**	**1,874.9666**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2251	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-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	0.0182	0.1209	0.2259	1.2600e-003	0.1393	5.5000e-004	0.1398	0.0373	5.1000e-004	0.0378		130.1214	130.1214	5.1400e-003		130.2498
Total	**0.2433**	**0.1209**	**0.2260**	**1.2600e-003**	**0.1393**	**5.5000e-004**	**0.1398**	**0.0373**	**5.1000e-004**	**0.0378**		**130.1217**	**130.1217**	**5.1400e-003**	**0.0000**	**130.2500**

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	0.2251	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-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	0.0182	0.1209	0.2259	1.2600e-003	0.1393	5.5000e-004	0.1398	0.0373	5.1000e-004	0.0378		130.1214	130.1214	5.1400e-003		130.2498
Total	**0.2433**	**0.1209**	**0.2260**	**1.2600e-003**	**0.1393**	**5.5000e-004**	**0.1398**	**0.0373**	**5.1000e-004**	**0.0378**		**130.1217**	**130.1217**	**5.1400e-003**	**0.0000**	**130.2500**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	5	1	

Acres of Grading (Site Preparation Phase): 0.5

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
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.9297	22.2106	8.4016	0.0172		1.0451	1.0451		0.9615	0.9615		1,764.2381	1,764.2381	0.5406		1,777.7521
Total	**1.9297**	**22.2106**	**8.4016**	**0.0172**	**5.7996**	**1.0451**	**6.8446**	**2.9537**	**0.9615**	**3.9152**		**1,764.2381**	**1,764.2381**	**0.5406**		**1,777.7521**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0553	0.0425	0.4559	9.8000e-004	0.0894	8.3000e-004	0.0903	0.0237	7.7000e-004	0.0245		97.1130	97.1130	4.0600e-003		97.2145
Total	**0.0553**	**0.0425**	**0.4559**	**9.8000e-004**	**0.0894**	**8.3000e-004**	**0.0903**	**0.0237**	**7.7000e-004**	**0.0245**		**97.1130**	**97.1130**	**4.0600e-003**		**97.2145**

3.2 Site Preparation - 2017

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					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.9297	22.2106	8.4016	0.0172		1.0451	1.0451		0.9615	0.9615	0.0000	1,764.2381	1,764.2381	0.5406		1,777.7521
Total	**1.9297**	**22.2106**	**8.4016**	**0.0172**	**5.7996**	**1.0451**	**6.8446**	**2.9537**	**0.9615**	**3.9152**	**0.0000**	**1,764.2381**	**1,764.2381**	**0.5406**		**1,777.7521**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0553	0.0425	0.4559	9.8000e-004	0.0894	8.3000e-004	0.0903	0.0237	7.7000e-004	0.0245		97.1130	97.1130	4.0600e-003		97.2145
Total	**0.0553**	**0.0425**	**0.4559**	**9.8000e-004**	**0.0894**	**8.3000e-004**	**0.0903**	**0.0237**	**7.7000e-004**	**0.0245**		**97.1130**	**97.1130**	**4.0600e-003**		**97.2145**

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	0.0182	0.1209	0.2259	1.2600e-003	0.1393	5.5000e-004	0.1398	0.0373	5.1000e-004	0.0378		130.1214	130.1214	5.1400e-003		130.2498
Unmitigated	0.0182	0.1209	0.2259	1.2600e-003	0.1393	5.5000e-004	0.1398	0.0373	5.1000e-004	0.0378		130.1214	130.1214	5.1400e-003		130.2498

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	1.89	22.75	16.74	20,118	20,118
Total	1.89	22.75	16.74	20,118	20,118

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2251	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	0.2251	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

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	0.0254					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1997					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**0.2251**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

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	0.0254					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1997					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**0.2251**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Golf Course

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Golf Course	1.00	Acre	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS goal is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Area Mitigation -

Long Beach Land Use Elements - Golf Course - Los Angeles-South Coast County, Annual

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	9.9000e-004	0.0111	4.4300e-003	1.0000e-005	2.9400e-003	5.2000e-004	3.4700e-003	1.4900e-003	4.8000e-004	1.9700e-003	0.0000	0.8450	0.8450	2.5000e-004	0.0000	0.8512
Maximum	**9.9000e-004**	**0.0111**	**4.4300e-003**	**1.0000e-005**	**2.9400e-003**	**5.2000e-004**	**3.4700e-003**	**1.4900e-003**	**4.8000e-004**	**1.9700e-003**	**0.0000**	**0.8450**	**0.8450**	**2.5000e-004**	**0.0000**	**0.8512**

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					
2017	9.9000e-004	0.0111	4.4300e-003	1.0000e-005	2.9400e-003	5.2000e-004	3.4700e-003	1.4900e-003	4.8000e-004	1.9700e-003	0.0000	0.8450	0.8450	2.5000e-004	0.0000	0.8512
Maximum	**9.9000e-004**	**0.0111**	**4.4300e-003**	**1.0000e-005**	**2.9400e-003**	**5.2000e-004**	**3.4700e-003**	**1.4900e-003**	**4.8000e-004**	**1.9700e-003**	**0.0000**	**0.8450**	**0.8450**	**2.5000e-004**	**0.0000**	**0.8512**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0411	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
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	0.0000
Mobile	6.9000e-004	4.8800e-003	8.4000e-003	5.0000e-005	4.8700e-003	2.0000e-005	4.8900e-003	1.3100e-003	2.0000e-005	1.3200e-003	0.0000	4.3365	4.3365	1.7000e-004	0.0000	4.3408
Waste						0.0000	0.0000		0.0000	0.0000	0.1888	0.0000	0.1888	0.0112	0.0000	0.4677
Water						0.0000	0.0000		0.0000	0.0000	0.0000	2.1089	2.1089	9.0000e-005	2.0000e-005	2.1165
Total	**0.0418**	**4.8800e-003**	**8.4100e-003**	**5.0000e-005**	**4.8700e-003**	**2.0000e-005**	**4.8900e-003**	**1.3100e-003**	**2.0000e-005**	**1.3200e-003**	**0.1888**	**6.4454**	**6.6342**	**0.0114**	**2.0000e-005**	**6.9250**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0411	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
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	0.0000
Mobile	6.9000e-004	4.8800e-003	8.4000e-003	5.0000e-005	4.8700e-003	2.0000e-005	4.8900e-003	1.3100e-003	2.0000e-005	1.3200e-003	0.0000	4.3365	4.3365	1.7000e-004	0.0000	4.3408
Waste						0.0000	0.0000		0.0000	0.0000	0.1888	0.0000	0.1888	0.0112	0.0000	0.4677
Water						0.0000	0.0000		0.0000	0.0000	0.0000	2.1089	2.1089	9.0000e-005	2.0000e-005	2.1165
Total	**0.0418**	**4.8800e-003**	**8.4100e-003**	**5.0000e-005**	**4.8700e-003**	**2.0000e-005**	**4.8900e-003**	**1.3100e-003**	**2.0000e-005**	**1.3200e-003**	**0.1888**	**6.4454**	**6.6342**	**0.0114**	**2.0000e-005**	**6.9250**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	5	1	

Acres of Grading (Site Preparation Phase): 0.5

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
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.9000e-003	0.0000	2.9000e-003	1.4800e-003	0.0000	1.4800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-004	0.0111	4.2000e-003	1.0000e-005		5.2000e-004	5.2000e-004		4.8000e-004	4.8000e-004	0.0000	0.8002	0.8002	2.5000e-004	0.0000	0.8064
Total	**9.6000e-004**	**0.0111**	**4.2000e-003**	**1.0000e-005**	**2.9000e-003**	**5.2000e-004**	**3.4200e-003**	**1.4800e-003**	**4.8000e-004**	**1.9600e-003**	**0.0000**	**0.8002**	**0.8002**	**2.5000e-004**	**0.0000**	**0.8064**

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	3.0000e-005	2.0000e-005	2.3000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0448	0.0448	0.0000	0.0000	0.0448
Total	**3.0000e-005**	**2.0000e-005**	**2.3000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0448**	**0.0448**	**0.0000**	**0.0000**	**0.0448**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.9000e-003	0.0000	2.9000e-003	1.4800e-003	0.0000	1.4800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6000e-004	0.0111	4.2000e-003	1.0000e-005		5.2000e-004	5.2000e-004		4.8000e-004	4.8000e-004	0.0000	0.8002	0.8002	2.5000e-004	0.0000	0.8064
Total	**9.6000e-004**	**0.0111**	**4.2000e-003**	**1.0000e-005**	**2.9000e-003**	**5.2000e-004**	**3.4200e-003**	**1.4800e-003**	**4.8000e-004**	**1.9600e-003**	**0.0000**	**0.8002**	**0.8002**	**2.5000e-004**	**0.0000**	**0.8064**

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	3.0000e-005	2.0000e-005	2.3000e-004	0.0000	4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0448	0.0448	0.0000	0.0000	0.0448
Total	**3.0000e-005**	**2.0000e-005**	**2.3000e-004**	**0.0000**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0448**	**0.0448**	**0.0000**	**0.0000**	**0.0448**

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	6.9000e-004	4.8800e-003	8.4000e-003	5.0000e-005	4.8700e-003	2.0000e-005	4.8900e-003	1.3100e-003	2.0000e-005	1.3200e-003	0.0000	4.3365	4.3365	1.7000e-004	0.0000	4.3408
Unmitigated	6.9000e-004	4.8800e-003	8.4000e-003	5.0000e-005	4.8700e-003	2.0000e-005	4.8900e-003	1.3100e-003	2.0000e-005	1.3200e-003	0.0000	4.3365	4.3365	1.7000e-004	0.0000	4.3408

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Golf Course	5.04	5.82	5.88	12,839	12,839
Total	5.04	5.82	5.88	12,839	12,839

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Golf Course	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Golf Course	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
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	tons/yr										MT/yr					
Golf Course	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
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
Golf Course	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
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Golf Course	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Golf Course	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0411	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Unmitigated	0.0411	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005

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	4.6400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0365					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	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Total	**0.0411**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

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	4.6400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0365					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	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	3.0000e-005
Total	**0.0411**	**0.0000**	**1.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0000**	**3.0000e-005**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2.1089	9.0000e-005	2.0000e-005	2.1165
Unmitigated	2.1089	9.0000e-005	2.0000e-005	2.1165

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Golf Course	0 / 1.19148	2.1089	9.0000e-005	2.0000e-005	2.1165
Total		**2.1089**	**9.0000e-005**	**2.0000e-005**	**2.1165**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Golf Course	0 / 1.19148	2.1089	9.0000e-005	2.0000e-005	2.1165
Total		**2.1089**	**9.0000e-005**	**2.0000e-005**	**2.1165**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.1888	0.0112	0.0000	0.4677
Unmitigated	0.1888	0.0112	0.0000	0.4677

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Golf Course	0.93	0.1888	0.0112	0.0000	0.4677
Total		**0.1888**	**0.0112**	**0.0000**	**0.4677**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Golf Course	0.93	0.1888	0.0112	0.0000	0.4677
Total		**0.1888**	**0.0112**	**0.0000**	**0.4677**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Golf Course

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Golf Course	1.00	Acre	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS goal is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Area Mitigation -

Long Beach Land Use Elements - Golf Course - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	1.9797	22.2490	8.8941	0.0183	5.8890	1.0459	6.9349	2.9774	0.9622	3.9396	0.0000	1,867.3515	1,867.3515	0.5448	0.0000	1,880.9725
Maximum	**1.9797**	**22.2490**	**8.8941**	**0.0183**	**5.8890**	**1.0459**	**6.9349**	**2.9774**	**0.9622**	**3.9396**	**0.0000**	**1,867.3515**	**1,867.3515**	**0.5448**	**0.0000**	**1,880.9725**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	1.9797	22.2490	8.8941	0.0183	5.8890	1.0459	6.9349	2.9774	0.9622	3.9396	0.0000	1,867.3515	1,867.3515	0.5448	0.0000	1,880.9725
Maximum	**1.9797**	**22.2490**	**8.8941**	**0.0183**	**5.8890**	**1.0459**	**6.9349**	**2.9774**	**0.9622**	**3.9396**	**0.0000**	**1,867.3515**	**1,867.3515**	**0.5448**	**0.0000**	**1,880.9725**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2251	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-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	4.4500e-003	0.0294	0.0530	2.9000e-004	0.0305	1.2000e-004	0.0306	8.1500e-003	1.1000e-004	8.2600e-003		30.2638	30.2638	1.1400e-003		30.2924
Total	**0.2296**	**0.0294**	**0.0531**	**2.9000e-004**	**0.0305**	**1.2000e-004**	**0.0306**	**8.1500e-003**	**1.1000e-004**	**8.2600e-003**		**30.2640**	**30.2640**	**1.1400e-003**	**0.0000**	**30.2926**

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	0.2251	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-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	4.4500e-003	0.0294	0.0530	2.9000e-004	0.0305	1.2000e-004	0.0306	8.1500e-003	1.1000e-004	8.2600e-003		30.2638	30.2638	1.1400e-003		30.2924
Total	**0.2296**	**0.0294**	**0.0531**	**2.9000e-004**	**0.0305**	**1.2000e-004**	**0.0306**	**8.1500e-003**	**1.1000e-004**	**8.2600e-003**		**30.2640**	**30.2640**	**1.1400e-003**	**0.0000**	**30.2926**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	5	1	

Acres of Grading (Site Preparation Phase): 0.5

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
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.9297	22.2106	8.4016	0.0172		1.0451	1.0451		0.9615	0.9615		1,764.2381	1,764.2381	0.5406		1,777.7521
Total	**1.9297**	**22.2106**	**8.4016**	**0.0172**	**5.7996**	**1.0451**	**6.8446**	**2.9537**	**0.9615**	**3.9152**		**1,764.2381**	**1,764.2381**	**0.5406**		**1,777.7521**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0500	0.0384	0.4925	1.0400e-003	0.0894	8.3000e-004	0.0903	0.0237	7.7000e-004	0.0245		103.1134	103.1134	4.2800e-003		103.2204
Total	**0.0500**	**0.0384**	**0.4925**	**1.0400e-003**	**0.0894**	**8.3000e-004**	**0.0903**	**0.0237**	**7.7000e-004**	**0.0245**		**103.1134**	**103.1134**	**4.2800e-003**		**103.2204**

3.2 Site Preparation - 2017

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					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.9297	22.2106	8.4016	0.0172		1.0451	1.0451		0.9615	0.9615	0.0000	1,764.2381	1,764.2381	0.5406		1,777.7521
Total	**1.9297**	**22.2106**	**8.4016**	**0.0172**	**5.7996**	**1.0451**	**6.8446**	**2.9537**	**0.9615**	**3.9152**	**0.0000**	**1,764.2381**	**1,764.2381**	**0.5406**		**1,777.7521**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0500	0.0384	0.4925	1.0400e-003	0.0894	8.3000e-004	0.0903	0.0237	7.7000e-004	0.0245		103.1134	103.1134	4.2800e-003		103.2204
Total	**0.0500**	**0.0384**	**0.4925**	**1.0400e-003**	**0.0894**	**8.3000e-004**	**0.0903**	**0.0237**	**7.7000e-004**	**0.0245**		**103.1134**	**103.1134**	**4.2800e-003**		**103.2204**

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	4.4500e-003	0.0294	0.0530	2.9000e-004	0.0305	1.2000e-004	0.0306	8.1500e-003	1.1000e-004	8.2600e-003		30.2638	30.2638	1.1400e-003		30.2924
Unmitigated	4.4500e-003	0.0294	0.0530	2.9000e-004	0.0305	1.2000e-004	0.0306	8.1500e-003	1.1000e-004	8.2600e-003		30.2638	30.2638	1.1400e-003		30.2924

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Golf Course	5.04	5.82	5.88	12,839	12,839
Total	5.04	5.82	5.88	12,839	12,839

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Golf Course	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Golf Course	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

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					
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2251	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	0.2251	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

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	0.0254					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1997					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**0.2251**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

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	0.0254					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1997					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**0.2251**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Golf Course

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Golf Course	1.00	Acre	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS goal is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Area Mitigation -

Long Beach Land Use Elements - Golf Course - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	1.9850	22.2531	8.8576	0.0182	5.8890	1.0459	6.9349	2.9774	0.9622	3.9396	0.0000	1,861.3511	1,861.3511	0.5446	0.0000	1,874.9666
Maximum	**1.9850**	**22.2531**	**8.8576**	**0.0182**	**5.8890**	**1.0459**	**6.9349**	**2.9774**	**0.9622**	**3.9396**	**0.0000**	**1,861.3511**	**1,861.3511**	**0.5446**	**0.0000**	**1,874.9666**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	1.9850	22.2531	8.8576	0.0182	5.8890	1.0459	6.9349	2.9774	0.9622	3.9396	0.0000	1,861.3511	1,861.3511	0.5446	0.0000	1,874.9666
Maximum	**1.9850**	**22.2531**	**8.8576**	**0.0182**	**5.8890**	**1.0459**	**6.9349**	**2.9774**	**0.9622**	**3.9396**	**0.0000**	**1,861.3511**	**1,861.3511**	**0.5446**	**0.0000**	**1,874.9666**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2251	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-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	4.3300e-003	0.0295	0.0510	2.8000e-004	0.0305	1.2000e-004	0.0306	8.1500e-003	1.1000e-004	8.2600e-003		28.8590	28.8590	1.1600e-003		28.8881
Total	**0.2295**	**0.0295**	**0.0511**	**2.8000e-004**	**0.0305**	**1.2000e-004**	**0.0306**	**8.1500e-003**	**1.1000e-004**	**8.2600e-003**		**28.8592**	**28.8592**	**1.1600e-003**	**0.0000**	**28.8883**

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	0.2251	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-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	4.3300e-003	0.0295	0.0510	2.8000e-004	0.0305	1.2000e-004	0.0306	8.1500e-003	1.1000e-004	8.2600e-003		28.8590	28.8590	1.1600e-003		28.8881
Total	**0.2295**	**0.0295**	**0.0511**	**2.8000e-004**	**0.0305**	**1.2000e-004**	**0.0306**	**8.1500e-003**	**1.1000e-004**	**8.2600e-003**		**28.8592**	**28.8592**	**1.1600e-003**	**0.0000**	**28.8883**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	5	1	

Acres of Grading (Site Preparation Phase): 0.5

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
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.9297	22.2106	8.4016	0.0172		1.0451	1.0451		0.9615	0.9615		1,764.2381	1,764.2381	0.5406		1,777.7521
Total	**1.9297**	**22.2106**	**8.4016**	**0.0172**	**5.7996**	**1.0451**	**6.8446**	**2.9537**	**0.9615**	**3.9152**		**1,764.2381**	**1,764.2381**	**0.5406**		**1,777.7521**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0553	0.0425	0.4559	9.8000e-004	0.0894	8.3000e-004	0.0903	0.0237	7.7000e-004	0.0245		97.1130	97.1130	4.0600e-003		97.2145
Total	**0.0553**	**0.0425**	**0.4559**	**9.8000e-004**	**0.0894**	**8.3000e-004**	**0.0903**	**0.0237**	**7.7000e-004**	**0.0245**		**97.1130**	**97.1130**	**4.0600e-003**		**97.2145**

3.2 Site Preparation - 2017

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					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.9297	22.2106	8.4016	0.0172		1.0451	1.0451		0.9615	0.9615	0.0000	1,764.2381	1,764.2381	0.5406		1,777.7521
Total	**1.9297**	**22.2106**	**8.4016**	**0.0172**	**5.7996**	**1.0451**	**6.8446**	**2.9537**	**0.9615**	**3.9152**	**0.0000**	**1,764.2381**	**1,764.2381**	**0.5406**		**1,777.7521**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0553	0.0425	0.4559	9.8000e-004	0.0894	8.3000e-004	0.0903	0.0237	7.7000e-004	0.0245		97.1130	97.1130	4.0600e-003		97.2145
Total	**0.0553**	**0.0425**	**0.4559**	**9.8000e-004**	**0.0894**	**8.3000e-004**	**0.0903**	**0.0237**	**7.7000e-004**	**0.0245**		**97.1130**	**97.1130**	**4.0600e-003**		**97.2145**

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	4.3300e-003	0.0295	0.0510	2.8000e-004	0.0305	1.2000e-004	0.0306	8.1500e-003	1.1000e-004	8.2600e-003		28.8590	28.8590	1.1600e-003		28.8881
Unmitigated	4.3300e-003	0.0295	0.0510	2.8000e-004	0.0305	1.2000e-004	0.0306	8.1500e-003	1.1000e-004	8.2600e-003		28.8590	28.8590	1.1600e-003		28.8881

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Golf Course	5.04	5.82	5.88	12,839	12,839
Total	5.04	5.82	5.88	12,839	12,839

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Golf Course	16.60	8.40	6.90	33.00	48.00	19.00	52	39	9

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Golf Course	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

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					
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
Golf Course	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

Use only Natural Gas Hearths

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2251	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	0.2251	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

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	0.0254					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1997					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**0.2251**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

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	0.0254					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.1997					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	**0.2251**	**0.0000**	**1.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**2.2000e-004**	**2.2000e-004**	**0.0000**		**2.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - General Light Industrial

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS goal is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Grading -

Vehicle Trips - No CalEEmod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - General Light Industrial - Los Angeles-South Coast County, Annual

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Long Beach Land Use Elements - General Light Industrial - Los Angeles-South Coast County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Energy	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	119.1032	119.1032	4.1000e-003	1.4300e-003	119.6316
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	10.9635	0.0000	10.9635	0.6479	0.0000	27.1617
Water						0.0000	0.0000		0.0000	0.0000	3.1958	20.8958	24.0916	0.3291	7.9300e-003	34.6826
Total	**0.1819**	**0.0387**	**0.0330**	**2.3000e-004**	**0.0000**	**2.9400e-003**	**2.9400e-003**	**0.0000**	**2.9400e-003**	**2.9400e-003**	**14.1593**	**140.0001**	**154.1594**	**0.9812**	**9.3600e-003**	**181.4770**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Energy	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	119.1032	119.1032	4.1000e-003	1.4300e-003	119.6316
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	10.9635	0.0000	10.9635	0.6479	0.0000	27.1617
Water						0.0000	0.0000		0.0000	0.0000	3.1958	20.8958	24.0916	0.3291	7.9300e-003	34.6826
Total	**0.1819**	**0.0387**	**0.0330**	**2.3000e-004**	**0.0000**	**2.9400e-003**	**2.9400e-003**	**0.0000**	**2.9400e-003**	**2.9400e-003**	**14.1593**	**140.0001**	**154.1594**	**0.9812**	**9.3600e-003**	**181.4770**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	77.0293	77.0293	3.2900e-003	6.6000e-004	77.3076
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	77.0293	77.0293	3.2900e-003	6.6000e-004	77.3076
NaturalGas Mitigated	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	42.0740	42.0740	8.1000e-004	7.7000e-004	42.3240
NaturalGas Unmitigated	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	42.0740	42.0740	8.1000e-004	7.7000e-004	42.3240

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					
General Light Industry	788436	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	42.0740	42.0740	8.1000e-004	7.7000e-004	42.3240
Total		**4.2500e-003**	**0.0387**	**0.0325**	**2.3000e-004**		**2.9400e-003**	**2.9400e-003**		**2.9400e-003**	**2.9400e-003**	**0.0000**	**42.0740**	**42.0740**	**8.1000e-004**	**7.7000e-004**	**42.3240**

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					
General Light Industry	788436	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	42.0740	42.0740	8.1000e-004	7.7000e-004	42.3240
Total		**4.2500e-003**	**0.0387**	**0.0325**	**2.3000e-004**		**2.9400e-003**	**2.9400e-003**		**2.9400e-003**	**2.9400e-003**	**0.0000**	**42.0740**	**42.0740**	**8.1000e-004**	**7.7000e-004**	**42.3240**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	483516	77.0293	3.2900e-003	6.6000e-004	77.3076
Total		**77.0293**	**3.2900e-003**	**6.6000e-004**	**77.3076**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	483516	77.0293	3.2900e-003	6.6000e-004	77.3076
Total		**77.0293**	**3.2900e-003**	**6.6000e-004**	**77.3076**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Unmitigated	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Total	**0.1776**	**0.0000**	**5.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1500e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Total	**0.1776**	**0.0000**	**5.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	24.0916	0.3291	7.9300e-003	34.6826
Unmitigated	24.0916	0.3291	7.9300e-003	34.6826

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	10.0733 / 0	24.0916	0.3291	7.9300e-003	34.6826
Total		**24.0916**	**0.3291**	**7.9300e-003**	**34.6826**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	10.0733 / 0	24.0916	0.3291	7.9300e-003	34.6826
Total		**24.0916**	**0.3291**	**7.9300e-003**	**34.6826**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	10.9635	0.6479	0.0000	27.1617
Unmitigated	10.9635	0.6479	0.0000	27.1617

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	54.01	10.9635	0.6479	0.0000	27.1617
Total		**10.9635**	**0.6479**	**0.0000**	**27.1617**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	54.01	10.9635	0.6479	0.0000	27.1617
Total		**10.9635**	**0.6479**	**0.0000**	**27.1617**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - General Light Industrial

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS goal is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Grading -

Vehicle Trips - No CalEEmod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - General Light Industrial - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
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
Total	**0.9968**	**0.2118**	**0.1823**	**1.2700e-003**	**0.0000**	**0.0161**	**0.0161**	**0.0000**	**0.0161**	**0.0161**		**254.1388**	**254.1388**	**4.8900e-003**	**4.6600e-003**	**255.6496**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
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
Total	**0.9968**	**0.2118**	**0.1823**	**1.2700e-003**	**0.0000**	**0.0161**	**0.0161**	**0.0000**	**0.0161**	**0.0161**		**254.1388**	**254.1388**	**4.8900e-003**	**4.6600e-003**	**255.6496**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

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	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
NaturalGas Unmitigated	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394

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					
General Light Industry	2160.1	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
Total		**0.0233**	**0.2118**	**0.1779**	**1.2700e-003**		**0.0161**	**0.0161**		**0.0161**	**0.0161**		**254.1293**	**254.1293**	**4.8700e-003**	**4.6600e-003**	**255.6394**

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					
General Light Industry	2.1601	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
Total		**0.0233**	**0.2118**	**0.1779**	**1.2700e-003**		**0.0161**	**0.0161**		**0.0161**	**0.0161**		**254.1293**	**254.1293**	**4.8700e-003**	**4.6600e-003**	**255.6394**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Unmitigated	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - General Light Industrial

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS goal is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Grading -

Vehicle Trips - No CalEEmod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - General Light Industrial - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
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
Total	**0.9968**	**0.2118**	**0.1823**	**1.2700e-003**	**0.0000**	**0.0161**	**0.0161**	**0.0000**	**0.0161**	**0.0161**		**254.1388**	**254.1388**	**4.8900e-003**	**4.6600e-003**	**255.6496**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
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
Total	**0.9968**	**0.2118**	**0.1823**	**1.2700e-003**	**0.0000**	**0.0161**	**0.0161**	**0.0000**	**0.0161**	**0.0161**		**254.1388**	**254.1388**	**4.8900e-003**	**4.6600e-003**	**255.6496**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

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	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
NaturalGas Unmitigated	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394

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					
General Light Industry	2160.1	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
Total		**0.0233**	**0.2118**	**0.1779**	**1.2700e-003**		**0.0161**	**0.0161**		**0.0161**	**0.0161**		**254.1293**	**254.1293**	**4.8700e-003**	**4.6600e-003**	**255.6394**

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					
General Light Industry	2.1601	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
Total		**0.0233**	**0.2118**	**0.1779**	**1.2700e-003**		**0.0161**	**0.0161**		**0.0161**	**0.0161**		**254.1293**	**254.1293**	**4.8700e-003**	**4.6600e-003**	**255.6394**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Unmitigated	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Junior College

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS goal is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Grading -

Vehicle Trips - No CalEEmod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Junior College - Los Angeles-South Coast County, Annual

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	11.23	0.00
tblVehicleTrips	SU_TR	1.21	0.00
tblVehicleTrips	WD_TR	27.49	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Energy	6.3600e-003	0.0578	0.0486	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	132.4827	132.4827	4.1800e-003	1.7500e-003	133.1081
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	11.4954	0.0000	11.4954	0.6794	0.0000	28.4793
Water						0.0000	0.0000		0.0000	0.0000	0.6778	10.3469	11.0248	0.0701	1.7300e-003	13.2925
Total	**0.1840**	**0.0578**	**0.0491**	**3.5000e-004**	**0.0000**	**4.3900e-003**	**4.3900e-003**	**0.0000**	**4.3900e-003**	**4.3900e-003**	**12.1732**	**142.8307**	**155.0040**	**0.7536**	**3.4800e-003**	**174.8810**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Energy	6.3600e-003	0.0578	0.0486	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	132.4827	132.4827	4.1800e-003	1.7500e-003	133.1081
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	11.4954	0.0000	11.4954	0.6794	0.0000	28.4793
Water						0.0000	0.0000		0.0000	0.0000	0.6778	10.3469	11.0248	0.0701	1.7300e-003	13.2925
Total	**0.1840**	**0.0578**	**0.0491**	**3.5000e-004**	**0.0000**	**4.3900e-003**	**4.3900e-003**	**0.0000**	**4.3900e-003**	**4.3900e-003**	**12.1732**	**142.8307**	**155.0040**	**0.7536**	**3.4800e-003**	**174.8810**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	16.60	8.40	6.90	6.40	88.60	5.00	92	7	1

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Junior College (2Yr)	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	69.5345	69.5345	2.9700e-003	5.9000e-004	69.7858
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	69.5345	69.5345	2.9700e-003	5.9000e-004	69.7858
NaturalGas Mitigated	6.3600e-003	0.0578	0.0486	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	62.9482	62.9482	1.2100e-003	1.1500e-003	63.3223
NaturalGas Unmitigated	6.3600e-003	0.0578	0.0486	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	62.9482	62.9482	1.2100e-003	1.1500e-003	63.3223

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					
Junior College (2Yr)	1.1796e+006	6.3600e-003	0.0578	0.0486	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	62.9482	62.9482	1.2100e-003	1.1500e-003	63.3223
Total		**6.3600e-003**	**0.0578**	**0.0486**	**3.5000e-004**		**4.3900e-003**	**4.3900e-003**		**4.3900e-003**	**4.3900e-003**	**0.0000**	**62.9482**	**62.9482**	**1.2100e-003**	**1.1500e-003**	**63.3223**

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					
Junior College (2Yr)	1.1796e+006	6.3600e-003	0.0578	0.0486	3.5000e-004		4.3900e-003	4.3900e-003		4.3900e-003	4.3900e-003	0.0000	62.9482	62.9482	1.2100e-003	1.1500e-003	63.3223
Total		**6.3600e-003**	**0.0578**	**0.0486**	**3.5000e-004**		**4.3900e-003**	**4.3900e-003**		**4.3900e-003**	**4.3900e-003**	**0.0000**	**62.9482**	**62.9482**	**1.2100e-003**	**1.1500e-003**	**63.3223**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	436471	69.5345	2.9700e-003	5.9000e-004	69.7858
Total		**69.5345**	**2.9700e-003**	**5.9000e-004**	**69.7858**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	436471	69.5345	2.9700e-003	5.9000e-004	69.7858
Total		**69.5345**	**2.9700e-003**	**5.9000e-004**	**69.7858**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Unmitigated	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Total	**0.1776**	**0.0000**	**5.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1500e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Total	**0.1776**	**0.0000**	**5.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	11.0248	0.0701	1.7300e-003	13.2925
Unmitigated	11.0248	0.0701	1.7300e-003	13.2925

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	2.13658 / 3.34182	11.0248	0.0701	1.7300e-003	13.2925
Total		**11.0248**	**0.0701**	**1.7300e-003**	**13.2925**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	2.13658 / 3.34182	11.0248	0.0701	1.7300e-003	13.2925
Total		**11.0248**	**0.0701**	**1.7300e-003**	**13.2925**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	11.4954	0.6794	0.0000	28.4793
Unmitigated	11.4954	0.6794	0.0000	28.4793

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	56.63	11.4954	0.6794	0.0000	28.4793
Total		**11.4954**	**0.6794**	**0.0000**	**28.4793**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	56.63	11.4954	0.6794	0.0000	28.4793
Total		**11.4954**	**0.6794**	**0.0000**	**28.4793**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Junior College

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS goal is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Grading -

Vehicle Trips - No CalEEmod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Junior College - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	11.23	0.00
tblVehicleTrips	SU_TR	1.21	0.00
tblVehicleTrips	WD_TR	27.49	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	0.0349	0.3168	0.2662	1.9000e-003		0.0241	0.0241		0.0241	0.0241		380.2111	380.2111	7.2900e-003	6.9700e-003	382.4705
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
Total	**1.0084**	**0.3169**	**0.2706**	**1.9000e-003**	**0.0000**	**0.0241**	**0.0241**	**0.0000**	**0.0241**	**0.0241**		**380.2206**	**380.2206**	**7.3100e-003**	**6.9700e-003**	**382.4806**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	0.0349	0.3168	0.2662	1.9000e-003		0.0241	0.0241		0.0241	0.0241		380.2111	380.2111	7.2900e-003	6.9700e-003	382.4705
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
Total	**1.0084**	**0.3169**	**0.2706**	**1.9000e-003**	**0.0000**	**0.0241**	**0.0241**	**0.0000**	**0.0241**	**0.0241**		**380.2206**	**380.2206**	**7.3100e-003**	**6.9700e-003**	**382.4806**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	16.60	8.40	6.90	6.40	88.60	5.00	92	7	1

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Junior College (2Yr)	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

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	0.0349	0.3168	0.2662	1.9000e-003		0.0241	0.0241		0.0241	0.0241		380.2111	380.2111	7.2900e-003	6.9700e-003	382.4705
NaturalGas Unmitigated	0.0349	0.3168	0.2662	1.9000e-003		0.0241	0.0241		0.0241	0.0241		380.2111	380.2111	7.2900e-003	6.9700e-003	382.4705

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					
Junior College (2Yr)	3231.79	0.0349	0.3168	0.2662	1.9000e-003		0.0241	0.0241		0.0241	0.0241		380.2111	380.2111	7.2900e-003	6.9700e-003	382.4705
Total		**0.0349**	**0.3168**	**0.2662**	**1.9000e-003**		**0.0241**	**0.0241**		**0.0241**	**0.0241**		**380.2111**	**380.2111**	**7.2900e-003**	**6.9700e-003**	**382.4705**

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					
Junior College (2Yr)	3.23179	0.0349	0.3168	0.2662	1.9000e-003		0.0241	0.0241		0.0241	0.0241		380.2111	380.2111	7.2900e-003	6.9700e-003	382.4705
Total		**0.0349**	**0.3168**	**0.2662**	**1.9000e-003**		**0.0241**	**0.0241**		**0.0241**	**0.0241**		**380.2111**	**380.2111**	**7.2900e-003**	**6.9700e-003**	**382.4705**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Unmitigated	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Junior College

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS goal is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Grading -

Vehicle Trips - No CalEEmod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Junior College - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	11.23	0.00
tblVehicleTrips	SU_TR	1.21	0.00
tblVehicleTrips	WD_TR	27.49	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	0.0349	0.3168	0.2662	1.9000e-003		0.0241	0.0241		0.0241	0.0241		380.2111	380.2111	7.2900e-003	6.9700e-003	382.4705
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
Total	**1.0084**	**0.3169**	**0.2706**	**1.9000e-003**	**0.0000**	**0.0241**	**0.0241**	**0.0000**	**0.0241**	**0.0241**		**380.2206**	**380.2206**	**7.3100e-003**	**6.9700e-003**	**382.4806**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	0.0349	0.3168	0.2662	1.9000e-003		0.0241	0.0241		0.0241	0.0241		380.2111	380.2111	7.2900e-003	6.9700e-003	382.4705
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
Total	**1.0084**	**0.3169**	**0.2706**	**1.9000e-003**	**0.0000**	**0.0241**	**0.0241**	**0.0000**	**0.0241**	**0.0241**		**380.2206**	**380.2206**	**7.3100e-003**	**6.9700e-003**	**382.4806**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	16.60	8.40	6.90	6.40	88.60	5.00	92	7	1

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Junior College (2Yr)	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

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	0.0349	0.3168	0.2662	1.9000e-003		0.0241	0.0241		0.0241	0.0241		380.2111	380.2111	7.2900e-003	6.9700e-003	382.4705
NaturalGas Unmitigated	0.0349	0.3168	0.2662	1.9000e-003		0.0241	0.0241		0.0241	0.0241		380.2111	380.2111	7.2900e-003	6.9700e-003	382.4705

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					
Junior College (2Yr)	3231.79	0.0349	0.3168	0.2662	1.9000e-003		0.0241	0.0241		0.0241	0.0241		380.2111	380.2111	7.2900e-003	6.9700e-003	382.4705
Total		**0.0349**	**0.3168**	**0.2662**	**1.9000e-003**		**0.0241**	**0.0241**		**0.0241**	**0.0241**		**380.2111**	**380.2111**	**7.2900e-003**	**6.9700e-003**	**382.4705**

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					
Junior College (2Yr)	3.23179	0.0349	0.3168	0.2662	1.9000e-003		0.0241	0.0241		0.0241	0.0241		380.2111	380.2111	7.2900e-003	6.9700e-003	382.4705
Total		**0.0349**	**0.3168**	**0.2662**	**1.9000e-003**		**0.0241**	**0.0241**		**0.0241**	**0.0241**		**380.2111**	**380.2111**	**7.2900e-003**	**6.9700e-003**	**382.4705**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Unmitigated	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Library

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Library	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS goal is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

On-road Fugitive Dust - No construction dust

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Library - Los Angeles-South Coast County, Annual

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	46.55	0.00
tblVehicleTrips	SU_TR	25.49	0.00
tblVehicleTrips	WD_TR	56.24	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Energy	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	119.1032	119.1032	4.1000e-003	1.4300e-003	119.6316
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	8.1440	0.0000	8.1440	0.4813	0.0000	20.1764
Water						0.0000	0.0000		0.0000	0.0000	0.4324	6.6004	7.0328	0.0447	1.1100e-003	8.4794
Total	**0.1819**	**0.0387**	**0.0330**	**2.3000e-004**	**0.0000**	**2.9400e-003**	**2.9400e-003**	**0.0000**	**2.9400e-003**	**2.9400e-003**	**8.5764**	**125.7047**	**134.2811**	**0.5301**	**2.5400e-003**	**148.2886**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Energy	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	119.1032	119.1032	4.1000e-003	1.4300e-003	119.6316
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	8.1440	0.0000	8.1440	0.4813	0.0000	20.1764
Water						0.0000	0.0000		0.0000	0.0000	0.4324	6.6004	7.0328	0.0447	1.1100e-003	8.4794
Total	**0.1819**	**0.0387**	**0.0330**	**2.3000e-004**	**0.0000**	**2.9400e-003**	**2.9400e-003**	**0.0000**	**2.9400e-003**	**2.9400e-003**	**8.5764**	**125.7047**	**134.2811**	**0.5301**	**2.5400e-003**	**148.2886**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Library	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Library	16.60	8.40	6.90	52.00	43.00	5.00	44	44	12

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Library	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	77.0293	77.0293	3.2900e-003	6.6000e-004	77.3076
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	77.0293	77.0293	3.2900e-003	6.6000e-004	77.3076
NaturalGas Mitigated	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	42.0740	42.0740	8.1000e-004	7.7000e-004	42.3240
NaturalGas Unmitigated	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	42.0740	42.0740	8.1000e-004	7.7000e-004	42.3240

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					
Library	788436	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	42.0740	42.0740	8.1000e-004	7.7000e-004	42.3240
Total		**4.2500e-003**	**0.0387**	**0.0325**	**2.3000e-004**		**2.9400e-003**	**2.9400e-003**		**2.9400e-003**	**2.9400e-003**	**0.0000**	**42.0740**	**42.0740**	**8.1000e-004**	**7.7000e-004**	**42.3240**

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					
Library	788436	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	42.0740	42.0740	8.1000e-004	7.7000e-004	42.3240
Total		**4.2500e-003**	**0.0387**	**0.0325**	**2.3000e-004**		**2.9400e-003**	**2.9400e-003**		**2.9400e-003**	**2.9400e-003**	**0.0000**	**42.0740**	**42.0740**	**8.1000e-004**	**7.7000e-004**	**42.3240**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Library	483516	77.0293	3.2900e-003	6.6000e-004	77.3076
Total		**77.0293**	**3.2900e-003**	**6.6000e-004**	**77.3076**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Library	483516	77.0293	3.2900e-003	6.6000e-004	77.3076
Total		**77.0293**	**3.2900e-003**	**6.6000e-004**	**77.3076**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Unmitigated	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Total	**0.1776**	**0.0000**	**5.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1500e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Total	**0.1776**	**0.0000**	**5.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	7.0328	0.0447	1.1100e-003	8.4794
Unmitigated	7.0328	0.0447	1.1100e-003	8.4794

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Library	1.36294 / 2.13179	7.0328	0.0447	1.1100e-003	8.4794
Total		**7.0328**	**0.0447**	**1.1100e-003**	**8.4794**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Library	1.36294 / 2.13179	7.0328	0.0447	1.1100e-003	8.4794
Total		**7.0328**	**0.0447**	**1.1100e-003**	**8.4794**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	8.1440	0.4813	0.0000	20.1764
Unmitigated	8.1440	0.4813	0.0000	20.1764

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Library	40.12	8.1440	0.4813	0.0000	20.1764
Total		**8.1440**	**0.4813**	**0.0000**	**20.1764**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Library	40.12	8.1440	0.4813	0.0000	20.1764
Total		**8.1440**	**0.4813**	**0.0000**	**20.1764**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Library

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Library	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS goal is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

On-road Fugitive Dust - No construction dust

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Library - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	46.55	0.00
tblVehicleTrips	SU_TR	25.49	0.00
tblVehicleTrips	WD_TR	56.24	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
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
Total	**0.9968**	**0.2118**	**0.1823**	**1.2700e-003**	**0.0000**	**0.0161**	**0.0161**	**0.0000**	**0.0161**	**0.0161**		**254.1388**	**254.1388**	**4.8900e-003**	**4.6600e-003**	**255.6496**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
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
Total	**0.9968**	**0.2118**	**0.1823**	**1.2700e-003**	**0.0000**	**0.0161**	**0.0161**	**0.0000**	**0.0161**	**0.0161**		**254.1388**	**254.1388**	**4.8900e-003**	**4.6600e-003**	**255.6496**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Library	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Library	16.60	8.40	6.90	52.00	43.00	5.00	44	44	12

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Library	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

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	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
NaturalGas Unmitigated	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394

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					
Library	2160.1	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
Total		**0.0233**	**0.2118**	**0.1779**	**1.2700e-003**		**0.0161**	**0.0161**		**0.0161**	**0.0161**		**254.1293**	**254.1293**	**4.8700e-003**	**4.6600e-003**	**255.6394**

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					
Library	2.1601	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
Total		**0.0233**	**0.2118**	**0.1779**	**1.2700e-003**		**0.0161**	**0.0161**		**0.0161**	**0.0161**		**254.1293**	**254.1293**	**4.8700e-003**	**4.6600e-003**	**255.6394**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Unmitigated	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Library

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Library	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS goal is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

On-road Fugitive Dust - No construction dust

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Library - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	46.55	0.00
tblVehicleTrips	SU_TR	25.49	0.00
tblVehicleTrips	WD_TR	56.24	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
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
Total	**0.9968**	**0.2118**	**0.1823**	**1.2700e-003**	**0.0000**	**0.0161**	**0.0161**	**0.0000**	**0.0161**	**0.0161**		**254.1388**	**254.1388**	**4.8900e-003**	**4.6600e-003**	**255.6496**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
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
Total	**0.9968**	**0.2118**	**0.1823**	**1.2700e-003**	**0.0000**	**0.0161**	**0.0161**	**0.0000**	**0.0161**	**0.0161**		**254.1388**	**254.1388**	**4.8900e-003**	**4.6600e-003**	**255.6496**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Library	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Library	16.60	8.40	6.90	52.00	43.00	5.00	44	44	12

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Library	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

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	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
NaturalGas Unmitigated	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394

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					
Library	2160.1	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
Total		**0.0233**	**0.2118**	**0.1779**	**1.2700e-003**		**0.0161**	**0.0161**		**0.0161**	**0.0161**		**254.1293**	**254.1293**	**4.8700e-003**	**4.6600e-003**	**255.6394**

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					
Library	2.1601	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
Total		**0.0233**	**0.2118**	**0.1779**	**1.2700e-003**		**0.0161**	**0.0161**		**0.0161**	**0.0161**		**254.1293**	**254.1293**	**4.8700e-003**	**4.6600e-003**	**255.6394**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Unmitigated	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Manufacturing

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Manufacturing - Los Angeles-South Coast County, Annual

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	1.49	0.00
tblVehicleTrips	SU_TR	0.62	0.00
tblVehicleTrips	WD_TR	3.82	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Energy	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	119.1032	119.1032	4.1000e-003	1.4300e-003	119.6316
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	10.9635	0.0000	10.9635	0.6479	0.0000	27.1617
Water						0.0000	0.0000		0.0000	0.0000	3.1958	20.8958	24.0916	0.3291	7.9300e-003	34.6826
Total	**0.1819**	**0.0387**	**0.0330**	**2.3000e-004**	**0.0000**	**2.9400e-003**	**2.9400e-003**	**0.0000**	**2.9400e-003**	**2.9400e-003**	**14.1593**	**140.0001**	**154.1594**	**0.9812**	**9.3600e-003**	**181.4770**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Energy	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	119.1032	119.1032	4.1000e-003	1.4300e-003	119.6316
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	10.9635	0.0000	10.9635	0.6479	0.0000	27.1617
Water						0.0000	0.0000		0.0000	0.0000	3.1958	20.8958	24.0916	0.3291	7.9300e-003	34.6826
Total	**0.1819**	**0.0387**	**0.0330**	**2.3000e-004**	**0.0000**	**2.9400e-003**	**2.9400e-003**	**0.0000**	**2.9400e-003**	**2.9400e-003**	**14.1593**	**140.0001**	**154.1594**	**0.9812**	**9.3600e-003**	**181.4770**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Manufacturing	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	77.0293	77.0293	3.2900e-003	6.6000e-004	77.3076
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	77.0293	77.0293	3.2900e-003	6.6000e-004	77.3076
NaturalGas Mitigated	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	42.0740	42.0740	8.1000e-004	7.7000e-004	42.3240
NaturalGas Unmitigated	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	42.0740	42.0740	8.1000e-004	7.7000e-004	42.3240

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					
Manufacturing	788436	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	42.0740	42.0740	8.1000e-004	7.7000e-004	42.3240
Total		**4.2500e-003**	**0.0387**	**0.0325**	**2.3000e-004**		**2.9400e-003**	**2.9400e-003**		**2.9400e-003**	**2.9400e-003**	**0.0000**	**42.0740**	**42.0740**	**8.1000e-004**	**7.7000e-004**	**42.3240**

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					
Manufacturing	788436	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	42.0740	42.0740	8.1000e-004	7.7000e-004	42.3240
Total		**4.2500e-003**	**0.0387**	**0.0325**	**2.3000e-004**		**2.9400e-003**	**2.9400e-003**		**2.9400e-003**	**2.9400e-003**	**0.0000**	**42.0740**	**42.0740**	**8.1000e-004**	**7.7000e-004**	**42.3240**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	483516	77.0293	3.2900e-003	6.6000e-004	77.3076
Total		**77.0293**	**3.2900e-003**	**6.6000e-004**	**77.3076**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Manufacturing	483516	77.0293	3.2900e-003	6.6000e-004	77.3076
Total		**77.0293**	**3.2900e-003**	**6.6000e-004**	**77.3076**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Unmitigated	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Total	**0.1776**	**0.0000**	**5.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1500e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Total	**0.1776**	**0.0000**	**5.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	24.0916	0.3291	7.9300e-003	34.6826
Unmitigated	24.0916	0.3291	7.9300e-003	34.6826

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	10.0733 / 0	24.0916	0.3291	7.9300e-003	34.6826
Total		**24.0916**	**0.3291**	**7.9300e-003**	**34.6826**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Manufacturing	10.0733 / 0	24.0916	0.3291	7.9300e-003	34.6826
Total		**24.0916**	**0.3291**	**7.9300e-003**	**34.6826**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	10.9635	0.6479	0.0000	27.1617
Unmitigated	10.9635	0.6479	0.0000	27.1617

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	54.01	10.9635	0.6479	0.0000	27.1617
Total		**10.9635**	**0.6479**	**0.0000**	**27.1617**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Manufacturing	54.01	10.9635	0.6479	0.0000	27.1617
Total		**10.9635**	**0.6479**	**0.0000**	**27.1617**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Manufacturing

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Manufacturing - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	1.49	0.00
tblVehicleTrips	SU_TR	0.62	0.00
tblVehicleTrips	WD_TR	3.82	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
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
Total	**0.9968**	**0.2118**	**0.1823**	**1.2700e-003**	**0.0000**	**0.0161**	**0.0161**	**0.0000**	**0.0161**	**0.0161**		**254.1388**	**254.1388**	**4.8900e-003**	**4.6600e-003**	**255.6496**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
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
Total	**0.9968**	**0.2118**	**0.1823**	**1.2700e-003**	**0.0000**	**0.0161**	**0.0161**	**0.0000**	**0.0161**	**0.0161**		**254.1388**	**254.1388**	**4.8900e-003**	**4.6600e-003**	**255.6496**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Manufacturing	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

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	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
NaturalGas Unmitigated	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394

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					
Manufacturing	2160.1	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
Total		**0.0233**	**0.2118**	**0.1779**	**1.2700e-003**		**0.0161**	**0.0161**		**0.0161**	**0.0161**		**254.1293**	**254.1293**	**4.8700e-003**	**4.6600e-003**	**255.6394**

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					
Manufacturing	2.1601	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
Total		**0.0233**	**0.2118**	**0.1779**	**1.2700e-003**		**0.0161**	**0.0161**		**0.0161**	**0.0161**		**254.1293**	**254.1293**	**4.8700e-003**	**4.6600e-003**	**255.6394**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Unmitigated	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Manufacturing

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Manufacturing	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Manufacturing - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	1.49	0.00
tblVehicleTrips	SU_TR	0.62	0.00
tblVehicleTrips	WD_TR	3.82	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
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
Total	**0.9968**	**0.2118**	**0.1823**	**1.2700e-003**	**0.0000**	**0.0161**	**0.0161**	**0.0000**	**0.0161**	**0.0161**		**254.1388**	**254.1388**	**4.8900e-003**	**4.6600e-003**	**255.6496**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
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
Total	**0.9968**	**0.2118**	**0.1823**	**1.2700e-003**	**0.0000**	**0.0161**	**0.0161**	**0.0000**	**0.0161**	**0.0161**		**254.1388**	**254.1388**	**4.8900e-003**	**4.6600e-003**	**255.6496**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Manufacturing	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Manufacturing	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Manufacturing	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

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	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
NaturalGas Unmitigated	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394

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					
Manufacturing	2160.1	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
Total		**0.0233**	**0.2118**	**0.1779**	**1.2700e-003**		**0.0161**	**0.0161**		**0.0161**	**0.0161**		**254.1293**	**254.1293**	**4.8700e-003**	**4.6600e-003**	**255.6394**

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					
Manufacturing	2.1601	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
Total		**0.0233**	**0.2118**	**0.1779**	**1.2700e-003**		**0.0161**	**0.0161**		**0.0161**	**0.0161**		**254.1293**	**254.1293**	**4.8700e-003**	**4.6600e-003**	**255.6394**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Unmitigated	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Convenience Market

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Convenience Market (24 Hour)	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Convenience Market - Los Angeles-South Coast County, Annual

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	863.10	0.00
tblVehicleTrips	SU_TR	758.45	0.00
tblVehicleTrips	WD_TR	737.99	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Energy	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	97.4965	97.4965	4.0700e-003	8.7000e-004	97.8576
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	26.5736	0.0000	26.5736	1.5705	0.0000	65.8348
Water						0.0000	0.0000		0.0000	0.0000	1.0237	10.1934	11.2171	0.1056	2.5700e-003	14.6222
Total	**0.1780**	**3.5000e-003**	**3.4900e-003**	**2.0000e-005**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**27.5972**	**107.6910**	**135.2882**	**1.6801**	**3.4400e-003**	**178.3158**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Energy	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	97.4965	97.4965	4.0700e-003	8.7000e-004	97.8576
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	26.5736	0.0000	26.5736	1.5705	0.0000	65.8348
Water						0.0000	0.0000		0.0000	0.0000	1.0237	10.1934	11.2171	0.1056	2.5700e-003	14.6222
Total	**0.1780**	**3.5000e-003**	**3.4900e-003**	**2.0000e-005**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**27.5972**	**107.6910**	**135.2882**	**1.6801**	**3.4400e-003**	**178.3158**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market (24 Hour)	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market (24 Hour)	16.60	8.40	6.90	0.90	80.10	19.00	24	15	61

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market (24 Hour)	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	93.6843	93.6843	4.0000e-003	8.0000e-004	94.0228
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	93.6843	93.6843	4.0000e-003	8.0000e-004	94.0228
NaturalGas Mitigated	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.8122	3.8122	7.0000e-005	7.0000e-005	3.8349
NaturalGas Unmitigated	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.8122	3.8122	7.0000e-005	7.0000e-005	3.8349

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					
Convenience Market (24 Hour)	71438.4	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.8122	3.8122	7.0000e-005	7.0000e-005	3.8349
Total		**3.9000e-004**	**3.5000e-003**	**2.9400e-003**	**2.0000e-005**		**2.7000e-004**	**2.7000e-004**		**2.7000e-004**	**2.7000e-004**	**0.0000**	**3.8122**	**3.8122**	**7.0000e-005**	**7.0000e-005**	**3.8349**

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					
Convenience Market (24 Hour)	71438.4	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.8122	3.8122	7.0000e-005	7.0000e-005	3.8349
Total		**3.9000e-004**	**3.5000e-003**	**2.9400e-003**	**2.0000e-005**		**2.7000e-004**	**2.7000e-004**		**2.7000e-004**	**2.7000e-004**	**0.0000**	**3.8122**	**3.8122**	**7.0000e-005**	**7.0000e-005**	**3.8349**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market (24 Hour)	588060	93.6843	4.0000e-003	8.0000e-004	94.0228
Total		**93.6843**	**4.0000e-003**	**8.0000e-004**	**94.0228**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market (24 Hour)	588060	93.6843	4.0000e-003	8.0000e-004	94.0228
Total		**93.6843**	**4.0000e-003**	**8.0000e-004**	**94.0228**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Unmitigated	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Total	**0.1776**	**0.0000**	**5.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1500e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Total	**0.1776**	**0.0000**	**5.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	11.2171	0.1056	2.5700e-003	14.6222
Unmitigated	11.2171	0.1056	2.5700e-003	14.6222

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market (24 Hour)	3.2266 / 1.97759	11.2171	0.1056	2.5700e-003	14.6222
Total		**11.2171**	**0.1056**	**2.5700e-003**	**14.6222**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market (24 Hour)	3.2266 / 1.97759	11.2171	0.1056	2.5700e-003	14.6222
Total		**11.2171**	**0.1056**	**2.5700e-003**	**14.6222**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	26.5736	1.5705	0.0000	65.8348
Unmitigated	26.5736	1.5705	0.0000	65.8348

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market (24 Hour)	130.91	26.5736	1.5705	0.0000	65.8348
Total		**26.5736**	**1.5705**	**0.0000**	**65.8348**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market (24 Hour)	130.91	26.5736	1.5705	0.0000	65.8348
Total		**26.5736**	**1.5705**	**0.0000**	**65.8348**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Convenience Market

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Convenience Market (24 Hour)	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Convenience Market - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	863.10	0.00
tblVehicleTrips	SU_TR	758.45	0.00
tblVehicleTrips	WD_TR	737.99	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
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
Total	**0.9756**	**0.0192**	**0.0205**	**1.2000e-004**	**0.0000**	**1.4800e-003**	**1.4800e-003**	**0.0000**	**1.4800e-003**	**1.4800e-003**		**23.0356**	**23.0356**	**4.6000e-004**	**4.2000e-004**	**23.1731**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
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
Total	**0.9756**	**0.0192**	**0.0205**	**1.2000e-004**	**0.0000**	**1.4800e-003**	**1.4800e-003**	**0.0000**	**1.4800e-003**	**1.4800e-003**		**23.0356**	**23.0356**	**4.6000e-004**	**4.2000e-004**	**23.1731**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market (24 Hour)	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market (24 Hour)	16.60	8.40	6.90	0.90	80.10	19.00	24	15	61

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market (24 Hour)	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

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	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
NaturalGas Unmitigated	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629

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					
Convenience Market (24 Hour)	195.722	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
Total		**2.1100e-003**	**0.0192**	**0.0161**	**1.2000e-004**		**1.4600e-003**	**1.4600e-003**		**1.4600e-003**	**1.4600e-003**		**23.0261**	**23.0261**	**4.4000e-004**	**4.2000e-004**	**23.1629**

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					
Convenience Market (24 Hour)	0.195722	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
Total		**2.1100e-003**	**0.0192**	**0.0161**	**1.2000e-004**		**1.4600e-003**	**1.4600e-003**		**1.4600e-003**	**1.4600e-003**		**23.0261**	**23.0261**	**4.4000e-004**	**4.2000e-004**	**23.1629**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Unmitigated	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Convenience Market

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Convenience Market (24 Hour)	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Convenience Market - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	863.10	0.00
tblVehicleTrips	SU_TR	758.45	0.00
tblVehicleTrips	WD_TR	737.99	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
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
Total	**0.9756**	**0.0192**	**0.0205**	**1.2000e-004**	**0.0000**	**1.4800e-003**	**1.4800e-003**	**0.0000**	**1.4800e-003**	**1.4800e-003**		**23.0356**	**23.0356**	**4.6000e-004**	**4.2000e-004**	**23.1731**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
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
Total	**0.9756**	**0.0192**	**0.0205**	**1.2000e-004**	**0.0000**	**1.4800e-003**	**1.4800e-003**	**0.0000**	**1.4800e-003**	**1.4800e-003**		**23.0356**	**23.0356**	**4.6000e-004**	**4.2000e-004**	**23.1731**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market (24 Hour)	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market (24 Hour)	16.60	8.40	6.90	0.90	80.10	19.00	24	15	61

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market (24 Hour)	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

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	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
NaturalGas Unmitigated	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629

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					
Convenience Market (24 Hour)	195.722	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
Total		**2.1100e-003**	**0.0192**	**0.0161**	**1.2000e-004**		**1.4600e-003**	**1.4600e-003**		**1.4600e-003**	**1.4600e-003**		**23.0261**	**23.0261**	**4.4000e-004**	**4.2000e-004**	**23.1629**

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					
Convenience Market (24 Hour)	0.195722	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
Total		**2.1100e-003**	**0.0192**	**0.0161**	**1.2000e-004**		**1.4600e-003**	**1.4600e-003**		**1.4600e-003**	**1.4600e-003**		**23.0261**	**23.0261**	**4.4000e-004**	**4.2000e-004**	**23.1629**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Unmitigated	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Medical_Office_Bldg

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS goal is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Medical_Office_Bldg - Los Angeles-South Coast County, Annual

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	8.96	0.00
tblVehicleTrips	SU_TR	1.55	0.00
tblVehicleTrips	WD_TR	36.13	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Energy	2.4500e-003	0.0222	0.0187	1.3000e-004		1.6900e-003	1.6900e-003		1.6900e-003	1.6900e-003	0.0000	114.3434	114.3434	4.3100e-003	1.2100e-003	114.8129
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	95.4971	0.0000	95.4971	5.6437	0.0000	236.5900
Water						0.0000	0.0000		0.0000	0.0000	1.7341	13.1812	14.9153	0.1787	4.3200e-003	20.6688
Total	**0.1801**	**0.0222**	**0.0192**	**1.3000e-004**	**0.0000**	**1.6900e-003**	**1.6900e-003**	**0.0000**	**1.6900e-003**	**1.6900e-003**	**97.2312**	**127.5257**	**224.7569**	**5.8267**	**5.5300e-003**	**372.0729**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Energy	2.4500e-003	0.0222	0.0187	1.3000e-004		1.6900e-003	1.6900e-003		1.6900e-003	1.6900e-003	0.0000	114.3434	114.3434	4.3100e-003	1.2100e-003	114.8129
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	95.4971	0.0000	95.4971	5.6437	0.0000	236.5900
Water						0.0000	0.0000		0.0000	0.0000	1.7341	13.1812	14.9153	0.1787	4.3200e-003	20.6688
Total	**0.1801**	**0.0222**	**0.0192**	**1.3000e-004**	**0.0000**	**1.6900e-003**	**1.6900e-003**	**0.0000**	**1.6900e-003**	**1.6900e-003**	**97.2312**	**127.5257**	**224.7569**	**5.8267**	**5.5300e-003**	**372.0729**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Medical Office Building	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Medical Office Building	16.60	8.40	6.90	29.60	51.40	19.00	60	30	10

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Medical Office Building	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	90.1451	90.1451	3.8500e-003	7.7000e-004	90.4708
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	90.1451	90.1451	3.8500e-003	7.7000e-004	90.4708
NaturalGas Mitigated	2.4500e-003	0.0222	0.0187	1.3000e-004		1.6900e-003	1.6900e-003		1.6900e-003	1.6900e-003	0.0000	24.1983	24.1983	4.6000e-004	4.4000e-004	24.3421
NaturalGas Unmitigated	2.4500e-003	0.0222	0.0187	1.3000e-004		1.6900e-003	1.6900e-003		1.6900e-003	1.6900e-003	0.0000	24.1983	24.1983	4.6000e-004	4.4000e-004	24.3421

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					
Medical Office Building	453460	2.4500e-003	0.0222	0.0187	1.3000e-004		1.6900e-003	1.6900e-003		1.6900e-003	1.6900e-003	0.0000	24.1983	24.1983	4.6000e-004	4.4000e-004	24.3421
Total		**2.4500e-003**	**0.0222**	**0.0187**	**1.3000e-004**		**1.6900e-003**	**1.6900e-003**		**1.6900e-003**	**1.6900e-003**	**0.0000**	**24.1983**	**24.1983**	**4.6000e-004**	**4.4000e-004**	**24.3421**

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					
Medical Office Building	453460	2.4500e-003	0.0222	0.0187	1.3000e-004		1.6900e-003	1.6900e-003		1.6900e-003	1.6900e-003	0.0000	24.1983	24.1983	4.6000e-004	4.4000e-004	24.3421
Total		**2.4500e-003**	**0.0222**	**0.0187**	**1.3000e-004**		**1.6900e-003**	**1.6900e-003**		**1.6900e-003**	**1.6900e-003**	**0.0000**	**24.1983**	**24.1983**	**4.6000e-004**	**4.4000e-004**	**24.3421**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Medical Office Building	565844	90.1451	3.8500e-003	7.7000e-004	90.4708
Total		**90.1451**	**3.8500e-003**	**7.7000e-004**	**90.4708**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Medical Office Building	565844	90.1451	3.8500e-003	7.7000e-004	90.4708
Total		**90.1451**	**3.8500e-003**	**7.7000e-004**	**90.4708**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Unmitigated	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Total	**0.1776**	**0.0000**	**5.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1500e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Total	**0.1776**	**0.0000**	**5.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	14.9153	0.1787	4.3200e-003	20.6688
Unmitigated	14.9153	0.1787	4.3200e-003	20.6688

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Medical Office Building	5.46593 / 1.04113	14.9153	0.1787	4.3200e-003	20.6688
Total		**14.9153**	**0.1787**	**4.3200e-003**	**20.6688**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Medical Office Building	5.46593 / 1.04113	14.9153	0.1787	4.3200e-003	20.6688
Total		**14.9153**	**0.1787**	**4.3200e-003**	**20.6688**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	95.4971	5.6437	0.0000	236.5900
Unmitigated	95.4971	5.6437	0.0000	236.5900

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Medical Office Building	470.45	95.4971	5.6437	0.0000	236.5900
Total		**95.4971**	**5.6437**	**0.0000**	**236.5900**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Medical Office Building	470.45	95.4971	5.6437	0.0000	236.5900
Total		**95.4971**	**5.6437**	**0.0000**	**236.5900**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Medical_Office_Bldg

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS goal is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Medical_Office_Bldg - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	8.96	0.00
tblVehicleTrips	SU_TR	1.55	0.00
tblVehicleTrips	WD_TR	36.13	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
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
Total	**0.9869**	**0.1218**	**0.1067**	**7.3000e-004**	**0.0000**	**9.2800e-003**	**9.2800e-003**	**0.0000**	**9.2800e-003**	**9.2800e-003**		**146.1690**	**146.1690**	**2.8200e-003**	**2.6800e-003**	**147.0381**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
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
Total	**0.9869**	**0.1218**	**0.1067**	**7.3000e-004**	**0.0000**	**9.2800e-003**	**9.2800e-003**	**0.0000**	**9.2800e-003**	**9.2800e-003**		**146.1690**	**146.1690**	**2.8200e-003**	**2.6800e-003**	**147.0381**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Medical Office Building	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Medical Office Building	16.60	8.40	6.90	29.60	51.40	19.00	60	30	10

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Medical Office Building	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

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	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
NaturalGas Unmitigated	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280

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					
Medical Office Building	1242.36	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
Total		**0.0134**	**0.1218**	**0.1023**	**7.3000e-004**		**9.2600e-003**	**9.2600e-003**		**9.2600e-003**	**9.2600e-003**		**146.1594**	**146.1594**	**2.8000e-003**	**2.6800e-003**	**147.0280**

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					
Medical Office Building	1.24236	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
Total		**0.0134**	**0.1218**	**0.1023**	**7.3000e-004**		**9.2600e-003**	**9.2600e-003**		**9.2600e-003**	**9.2600e-003**		**146.1594**	**146.1594**	**2.8000e-003**	**2.6800e-003**	**147.0280**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Unmitigated	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Medical_Office_Bldg

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS goal is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Medical_Office_Bldg - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	8.96	0.00
tblVehicleTrips	SU_TR	1.55	0.00
tblVehicleTrips	WD_TR	36.13	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
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
Total	**0.9869**	**0.1218**	**0.1067**	**7.3000e-004**	**0.0000**	**9.2800e-003**	**9.2800e-003**	**0.0000**	**9.2800e-003**	**9.2800e-003**		**146.1690**	**146.1690**	**2.8200e-003**	**2.6800e-003**	**147.0381**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
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
Total	**0.9869**	**0.1218**	**0.1067**	**7.3000e-004**	**0.0000**	**9.2800e-003**	**9.2800e-003**	**0.0000**	**9.2800e-003**	**9.2800e-003**		**146.1690**	**146.1690**	**2.8200e-003**	**2.6800e-003**	**147.0381**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Medical Office Building	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Medical Office Building	16.60	8.40	6.90	29.60	51.40	19.00	60	30	10

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Medical Office Building	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

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	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
NaturalGas Unmitigated	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280

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					
Medical Office Building	1242.36	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
Total		**0.0134**	**0.1218**	**0.1023**	**7.3000e-004**		**9.2600e-003**	**9.2600e-003**		**9.2600e-003**	**9.2600e-003**		**146.1594**	**146.1594**	**2.8000e-003**	**2.6800e-003**	**147.0280**

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					
Medical Office Building	1.24236	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
Total		**0.0134**	**0.1218**	**0.1023**	**7.3000e-004**		**9.2600e-003**	**9.2600e-003**		**9.2600e-003**	**9.2600e-003**		**146.1594**	**146.1594**	**2.8000e-003**	**2.6800e-003**	**147.0280**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Unmitigated	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - General Office Bldg

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS goal is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Trips and VMT - No onstruction worker trips

On-road Fugitive Dust - No construction dust

Grading -

Vehicle Trips - No CalEEmod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - General Office Bldg - Los Angeles-South Coast County, Annual

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	WD_TR	11.03	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Energy	2.4500e-003	0.0222	0.0187	1.3000e-004		1.6900e-003	1.6900e-003		1.6900e-003	1.6900e-003	0.0000	114.3434	114.3434	4.3100e-003	1.2100e-003	114.8129
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	8.2232	0.0000	8.2232	0.4860	0.0000	20.3725
Water						0.0000	0.0000		0.0000	0.0000	2.4562	24.4587	26.9149	0.2533	6.1700e-003	35.0853
Total	**0.1801**	**0.0222**	**0.0192**	**1.3000e-004**	**0.0000**	**1.6900e-003**	**1.6900e-003**	**0.0000**	**1.6900e-003**	**1.6900e-003**	**10.6794**	**138.8032**	**149.4826**	**0.7436**	**7.3800e-003**	**170.2719**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Energy	2.4500e-003	0.0222	0.0187	1.3000e-004		1.6900e-003	1.6900e-003		1.6900e-003	1.6900e-003	0.0000	114.3434	114.3434	4.3100e-003	1.2100e-003	114.8129
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	8.2232	0.0000	8.2232	0.4860	0.0000	20.3725
Water						0.0000	0.0000		0.0000	0.0000	2.4562	24.4587	26.9149	0.2533	6.1700e-003	35.0853
Total	**0.1801**	**0.0222**	**0.0192**	**1.3000e-004**	**0.0000**	**1.6900e-003**	**1.6900e-003**	**0.0000**	**1.6900e-003**	**1.6900e-003**	**10.6794**	**138.8032**	**149.4826**	**0.7436**	**7.3800e-003**	**170.2719**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	90.1451	90.1451	3.8500e-003	7.7000e-004	90.4708
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	90.1451	90.1451	3.8500e-003	7.7000e-004	90.4708
NaturalGas Mitigated	2.4500e-003	0.0222	0.0187	1.3000e-004		1.6900e-003	1.6900e-003		1.6900e-003	1.6900e-003	0.0000	24.1983	24.1983	4.6000e-004	4.4000e-004	24.3421
NaturalGas Unmitigated	2.4500e-003	0.0222	0.0187	1.3000e-004		1.6900e-003	1.6900e-003		1.6900e-003	1.6900e-003	0.0000	24.1983	24.1983	4.6000e-004	4.4000e-004	24.3421

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					
General Office Building	453460	2.4500e-003	0.0222	0.0187	1.3000e-004		1.6900e-003	1.6900e-003		1.6900e-003	1.6900e-003	0.0000	24.1983	24.1983	4.6000e-004	4.4000e-004	24.3421
Total		**2.4500e-003**	**0.0222**	**0.0187**	**1.3000e-004**		**1.6900e-003**	**1.6900e-003**		**1.6900e-003**	**1.6900e-003**	**0.0000**	**24.1983**	**24.1983**	**4.6000e-004**	**4.4000e-004**	**24.3421**

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					
General Office Building	453460	2.4500e-003	0.0222	0.0187	1.3000e-004		1.6900e-003	1.6900e-003		1.6900e-003	1.6900e-003	0.0000	24.1983	24.1983	4.6000e-004	4.4000e-004	24.3421
Total		**2.4500e-003**	**0.0222**	**0.0187**	**1.3000e-004**		**1.6900e-003**	**1.6900e-003**		**1.6900e-003**	**1.6900e-003**	**0.0000**	**24.1983**	**24.1983**	**4.6000e-004**	**4.4000e-004**	**24.3421**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	565844	90.1451	3.8500e-003	7.7000e-004	90.4708
Total		**90.1451**	**3.8500e-003**	**7.7000e-004**	**90.4708**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	565844	90.1451	3.8500e-003	7.7000e-004	90.4708
Total		**90.1451**	**3.8500e-003**	**7.7000e-004**	**90.4708**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Unmitigated	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Total	**0.1776**	**0.0000**	**5.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1500e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Total	**0.1776**	**0.0000**	**5.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	26.9149	0.2533	6.1700e-003	35.0853
Unmitigated	26.9149	0.2533	6.1700e-003	35.0853

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	7.74208 / 4.74515	26.9149	0.2533	6.1700e-003	35.0853
Total		**26.9149**	**0.2533**	**6.1700e-003**	**35.0853**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	7.74208 / 4.74515	26.9149	0.2533	6.1700e-003	35.0853
Total		**26.9149**	**0.2533**	**6.1700e-003**	**35.0853**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	8.2232	0.4860	0.0000	20.3725
Unmitigated	8.2232	0.4860	0.0000	20.3725

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	40.51	8.2232	0.4860	0.0000	20.3725
Total		**8.2232**	**0.4860**	**0.0000**	**20.3725**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	40.51	8.2232	0.4860	0.0000	20.3725
Total		**8.2232**	**0.4860**	**0.0000**	**20.3725**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - General Office Bldg

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS goal is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Trips and VMT - No onstruction worker trips

On-road Fugitive Dust - No construction dust

Grading -

Vehicle Trips - No CalEEmod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - General Office Bldg - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	WD_TR	11.03	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
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
Total	**0.9869**	**0.1218**	**0.1067**	**7.3000e-004**	**0.0000**	**9.2800e-003**	**9.2800e-003**	**0.0000**	**9.2800e-003**	**9.2800e-003**		**146.1690**	**146.1690**	**2.8200e-003**	**2.6800e-003**	**147.0381**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
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
Total	**0.9869**	**0.1218**	**0.1067**	**7.3000e-004**	**0.0000**	**9.2800e-003**	**9.2800e-003**	**0.0000**	**9.2800e-003**	**9.2800e-003**		**146.1690**	**146.1690**	**2.8200e-003**	**2.6800e-003**	**147.0381**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

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	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
NaturalGas Unmitigated	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280

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					
General Office Building	1242.36	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
Total		**0.0134**	**0.1218**	**0.1023**	**7.3000e-004**		**9.2600e-003**	**9.2600e-003**		**9.2600e-003**	**9.2600e-003**		**146.1594**	**146.1594**	**2.8000e-003**	**2.6800e-003**	**147.0280**

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					
General Office Building	1.24236	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
Total		**0.0134**	**0.1218**	**0.1023**	**7.3000e-004**		**9.2600e-003**	**9.2600e-003**		**9.2600e-003**	**9.2600e-003**		**146.1594**	**146.1594**	**2.8000e-003**	**2.6800e-003**	**147.0280**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Unmitigated	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - General Office Bldg

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS goal is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Trips and VMT - No onstruction worker trips

On-road Fugitive Dust - No construction dust

Grading -

Vehicle Trips - No CalEEmod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - General Office Bldg - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	WD_TR	11.03	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
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
Total	**0.9869**	**0.1218**	**0.1067**	**7.3000e-004**	**0.0000**	**9.2800e-003**	**9.2800e-003**	**0.0000**	**9.2800e-003**	**9.2800e-003**		**146.1690**	**146.1690**	**2.8200e-003**	**2.6800e-003**	**147.0381**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
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
Total	**0.9869**	**0.1218**	**0.1067**	**7.3000e-004**	**0.0000**	**9.2800e-003**	**9.2800e-003**	**0.0000**	**9.2800e-003**	**9.2800e-003**		**146.1690**	**146.1690**	**2.8200e-003**	**2.6800e-003**	**147.0381**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

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	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
NaturalGas Unmitigated	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280

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					
General Office Building	1242.36	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
Total		**0.0134**	**0.1218**	**0.1023**	**7.3000e-004**		**9.2600e-003**	**9.2600e-003**		**9.2600e-003**	**9.2600e-003**		**146.1594**	**146.1594**	**2.8000e-003**	**2.6800e-003**	**147.0280**

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					
General Office Building	1.24236	0.0134	0.1218	0.1023	7.3000e-004		9.2600e-003	9.2600e-003		9.2600e-003	9.2600e-003		146.1594	146.1594	2.8000e-003	2.6800e-003	147.0280
Total		**0.0134**	**0.1218**	**0.1023**	**7.3000e-004**		**9.2600e-003**	**9.2600e-003**		**9.2600e-003**	**9.2600e-003**		**146.1594**	**146.1594**	**2.8000e-003**	**2.6800e-003**	**147.0280**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Unmitigated	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Pharmacy/Drugstore

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Pharmacy/Drugstore w/o Drive Thru	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS goal is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Pharmacy/Drugstore - Los Angeles-South Coast County, Annual

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	90.06	0.00
tblVehicleTrips	SU_TR	90.06	0.00
tblVehicleTrips	WD_TR	90.06	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Energy	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	97.4965	97.4965	4.0700e-003	8.7000e-004	97.8576
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	26.5878	0.0000	26.5878	1.5713	0.0000	65.8700
Water						0.0000	0.0000		0.0000	0.0000	0.9736	9.6946	10.6681	0.1004	2.4400e-003	13.9066
Total	**0.1780**	**3.5000e-003**	**3.4900e-003**	**2.0000e-005**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**27.5613**	**107.1921**	**134.7535**	**1.6758**	**3.3100e-003**	**177.6354**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Energy	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	97.4965	97.4965	4.0700e-003	8.7000e-004	97.8576
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	26.5878	0.0000	26.5878	1.5713	0.0000	65.8700
Water						0.0000	0.0000		0.0000	0.0000	0.9736	9.6946	10.6681	0.1004	2.4400e-003	13.9066
Total	**0.1780**	**3.5000e-003**	**3.4900e-003**	**2.0000e-005**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**27.5613**	**107.1921**	**134.7535**	**1.6758**	**3.3100e-003**	**177.6354**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

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

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Pharmacy/Drugstore w/o Drive Thru	16.60	8.40	6.90	7.40	73.60	19.00	41	6	53

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Pharmacy/Drugstore w/o Drive Thru	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	93.6843	93.6843	4.0000e-003	8.0000e-004	94.0228
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	93.6843	93.6843	4.0000e-003	8.0000e-004	94.0228
NaturalGas Mitigated	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.8122	3.8122	7.0000e-005	7.0000e-005	3.8349
NaturalGas Unmitigated	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.8122	3.8122	7.0000e-005	7.0000e-005	3.8349

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					
Pharmacy/Drugstore w/o Drive Thru	71438.4	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.8122	3.8122	7.0000e-005	7.0000e-005	3.8349
Total		**3.9000e-004**	**3.5000e-003**	**2.9400e-003**	**2.0000e-005**		**2.7000e-004**	**2.7000e-004**		**2.7000e-004**	**2.7000e-004**	**0.0000**	**3.8122**	**3.8122**	**7.0000e-005**	**7.0000e-005**	**3.8349**

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					
Pharmacy/Drugstore w/o Drive Thru	71438.4	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.8122	3.8122	7.0000e-005	7.0000e-005	3.8349
Total		**3.9000e-004**	**3.5000e-003**	**2.9400e-003**	**2.0000e-005**		**2.7000e-004**	**2.7000e-004**		**2.7000e-004**	**2.7000e-004**	**0.0000**	**3.8122**	**3.8122**	**7.0000e-005**	**7.0000e-005**	**3.8349**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Pharmacy/Drugstore w/o Drive Thru	588060	93.6843	4.0000e-003	8.0000e-004	94.0228
Total		**93.6843**	**4.0000e-003**	**8.0000e-004**	**94.0228**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Pharmacy/Drugstore w/o Drive Thru	588060	93.6843	4.0000e-003	8.0000e-004	94.0228
Total		**93.6843**	**4.0000e-003**	**8.0000e-004**	**94.0228**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Unmitigated	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Total	**0.1776**	**0.0000**	**5.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1500e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Total	**0.1776**	**0.0000**	**5.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	10.6681	0.1004	2.4400e-003	13.9066
Unmitigated	10.6681	0.1004	2.4400e-003	13.9066

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Pharmacy/Drugstore w/o Drive Thru	3.06869 / 1.88081	10.6681	0.1004	2.4400e-003	13.9066
Total		**10.6681**	**0.1004**	**2.4400e-003**	**13.9066**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Pharmacy/Drugstore w/o Drive Thru	3.06869 / 1.88081	10.6681	0.1004	2.4400e-003	13.9066
Total		**10.6681**	**0.1004**	**2.4400e-003**	**13.9066**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	26.5878	1.5713	0.0000	65.8700
Unmitigated	26.5878	1.5713	0.0000	65.8700

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Pharmacy/Drugstore w/o Drive Thru	130.98	26.5878	1.5713	0.0000	65.8700
Total		**26.5878**	**1.5713**	**0.0000**	**65.8700**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Pharmacy/Drugstore w/o Drive Thru	130.98	26.5878	1.5713	0.0000	65.8700
Total		**26.5878**	**1.5713**	**0.0000**	**65.8700**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Pharmacy/Drugstore

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Pharmacy/Drugstore w/o Drive Thru	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS goal is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Pharmacy/Drugstore - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	90.06	0.00
tblVehicleTrips	SU_TR	90.06	0.00
tblVehicleTrips	WD_TR	90.06	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
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
Total	**0.9756**	**0.0192**	**0.0205**	**1.2000e-004**	**0.0000**	**1.4800e-003**	**1.4800e-003**	**0.0000**	**1.4800e-003**	**1.4800e-003**		**23.0356**	**23.0356**	**4.6000e-004**	**4.2000e-004**	**23.1731**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
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
Total	**0.9756**	**0.0192**	**0.0205**	**1.2000e-004**	**0.0000**	**1.4800e-003**	**1.4800e-003**	**0.0000**	**1.4800e-003**	**1.4800e-003**		**23.0356**	**23.0356**	**4.6000e-004**	**4.2000e-004**	**23.1731**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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
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

4.2 Trip Summary Information

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

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Pharmacy/Drugstore w/o Drive Thru	16.60	8.40	6.90	7.40	73.60	19.00	41	6	53

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Pharmacy/Drugstore w/o Drive Thru	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

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	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
NaturalGas Unmitigated	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629

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					
Pharmacy/Drugstore w/o Drive Thru	195.722	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
Total		**2.1100e-003**	**0.0192**	**0.0161**	**1.2000e-004**		**1.4600e-003**	**1.4600e-003**		**1.4600e-003**	**1.4600e-003**		**23.0261**	**23.0261**	**4.4000e-004**	**4.2000e-004**	**23.1629**

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					
Pharmacy/Drugstore w/o Drive Thru	0.195722	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
Total		**2.1100e-003**	**0.0192**	**0.0161**	**1.2000e-004**		**1.4600e-003**	**1.4600e-003**		**1.4600e-003**	**1.4600e-003**		**23.0261**	**23.0261**	**4.4000e-004**	**4.2000e-004**	**23.1629**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Unmitigated	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Pharmacy/Drugstore

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Pharmacy/Drugstore w/o Drive Thru	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS goal is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Pharmacy/Drugstore - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	90.06	0.00
tblVehicleTrips	SU_TR	90.06	0.00
tblVehicleTrips	WD_TR	90.06	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
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
Total	**0.9756**	**0.0192**	**0.0205**	**1.2000e-004**	**0.0000**	**1.4800e-003**	**1.4800e-003**	**0.0000**	**1.4800e-003**	**1.4800e-003**		**23.0356**	**23.0356**	**4.6000e-004**	**4.2000e-004**	**23.1731**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
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
Total	**0.9756**	**0.0192**	**0.0205**	**1.2000e-004**	**0.0000**	**1.4800e-003**	**1.4800e-003**	**0.0000**	**1.4800e-003**	**1.4800e-003**		**23.0356**	**23.0356**	**4.6000e-004**	**4.2000e-004**	**23.1731**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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
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

4.2 Trip Summary Information

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

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Pharmacy/Drugstore w/o Drive Thru	16.60	8.40	6.90	7.40	73.60	19.00	41	6	53

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Pharmacy/Drugstore w/o Drive Thru	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

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	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
NaturalGas Unmitigated	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629

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					
Pharmacy/Drugstore w/o Drive Thru	195.722	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
Total		**2.1100e-003**	**0.0192**	**0.0161**	**1.2000e-004**		**1.4600e-003**	**1.4600e-003**		**1.4600e-003**	**1.4600e-003**		**23.0261**	**23.0261**	**4.4000e-004**	**4.2000e-004**	**23.1629**

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					
Pharmacy/Drugstore w/o Drive Thru	0.195722	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
Total		**2.1100e-003**	**0.0192**	**0.0161**	**1.2000e-004**		**1.4600e-003**	**1.4600e-003**		**1.4600e-003**	**1.4600e-003**		**23.0261**	**23.0261**	**4.4000e-004**	**4.2000e-004**	**23.1629**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Unmitigated	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - R&D

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS goal is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - R&D - Los Angeles-South Coast County, Annual

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	1.90	0.00
tblVehicleTrips	SU_TR	1.11	0.00
tblVehicleTrips	WD_TR	8.11	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Energy	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	119.1032	119.1032	4.1000e-003	1.4300e-003	119.6316
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	0.6719	0.0000	0.6719	0.0397	0.0000	1.6646
Water						0.0000	0.0000		0.0000	0.0000	6.7950	44.4296	51.2246	0.6998	0.0169	73.7437
Total	**0.1819**	**0.0387**	**0.0330**	**2.3000e-004**	**0.0000**	**2.9400e-003**	**2.9400e-003**	**0.0000**	**2.9400e-003**	**2.9400e-003**	**7.4669**	**163.5339**	**171.0008**	**0.7436**	**0.0183**	**195.0410**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Energy	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	119.1032	119.1032	4.1000e-003	1.4300e-003	119.6316
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	0.6719	0.0000	0.6719	0.0397	0.0000	1.6646
Water						0.0000	0.0000		0.0000	0.0000	6.7950	44.4296	51.2246	0.6998	0.0169	73.7437
Total	**0.1819**	**0.0387**	**0.0330**	**2.3000e-004**	**0.0000**	**2.9400e-003**	**2.9400e-003**	**0.0000**	**2.9400e-003**	**2.9400e-003**	**7.4669**	**163.5339**	**171.0008**	**0.7436**	**0.0183**	**195.0410**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Research & Development	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Research & Development	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Research & Development	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	77.0293	77.0293	3.2900e-003	6.6000e-004	77.3076
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	77.0293	77.0293	3.2900e-003	6.6000e-004	77.3076
NaturalGas Mitigated	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	42.0740	42.0740	8.1000e-004	7.7000e-004	42.3240
NaturalGas Unmitigated	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	42.0740	42.0740	8.1000e-004	7.7000e-004	42.3240

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					
Research & Development	788436	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	42.0740	42.0740	8.1000e-004	7.7000e-004	42.3240
Total		**4.2500e-003**	**0.0387**	**0.0325**	**2.3000e-004**		**2.9400e-003**	**2.9400e-003**		**2.9400e-003**	**2.9400e-003**	**0.0000**	**42.0740**	**42.0740**	**8.1000e-004**	**7.7000e-004**	**42.3240**

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					
Research & Development	788436	4.2500e-003	0.0387	0.0325	2.3000e-004		2.9400e-003	2.9400e-003		2.9400e-003	2.9400e-003	0.0000	42.0740	42.0740	8.1000e-004	7.7000e-004	42.3240
Total		**4.2500e-003**	**0.0387**	**0.0325**	**2.3000e-004**		**2.9400e-003**	**2.9400e-003**		**2.9400e-003**	**2.9400e-003**	**0.0000**	**42.0740**	**42.0740**	**8.1000e-004**	**7.7000e-004**	**42.3240**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Research & Development	483516	77.0293	3.2900e-003	6.6000e-004	77.3076
Total		**77.0293**	**3.2900e-003**	**6.6000e-004**	**77.3076**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Research & Development	483516	77.0293	3.2900e-003	6.6000e-004	77.3076
Total		**77.0293**	**3.2900e-003**	**6.6000e-004**	**77.3076**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Unmitigated	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Total	**0.1776**	**0.0000**	**5.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1500e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Total	**0.1776**	**0.0000**	**5.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	51.2246	0.6998	0.0169	73.7437
Unmitigated	51.2246	0.6998	0.0169	73.7437

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Research & Development	21.4182 / 0	51.2246	0.6998	0.0169	73.7437
Total		**51.2246**	**0.6998**	**0.0169**	**73.7437**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Research & Development	21.4182 / 0	51.2246	0.6998	0.0169	73.7437
Total		**51.2246**	**0.6998**	**0.0169**	**73.7437**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.6719	0.0397	0.0000	1.6646
Unmitigated	0.6719	0.0397	0.0000	1.6646

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Research & Development	3.31	0.6719	0.0397	0.0000	1.6646
Total		**0.6719**	**0.0397**	**0.0000**	**1.6646**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Research & Development	3.31	0.6719	0.0397	0.0000	1.6646
Total		**0.6719**	**0.0397**	**0.0000**	**1.6646**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - R&D

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS goal is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - R&D - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	1.90	0.00
tblVehicleTrips	SU_TR	1.11	0.00
tblVehicleTrips	WD_TR	8.11	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
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
Total	**0.9968**	**0.2118**	**0.1823**	**1.2700e-003**	**0.0000**	**0.0161**	**0.0161**	**0.0000**	**0.0161**	**0.0161**		**254.1388**	**254.1388**	**4.8900e-003**	**4.6600e-003**	**255.6496**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
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
Total	**0.9968**	**0.2118**	**0.1823**	**1.2700e-003**	**0.0000**	**0.0161**	**0.0161**	**0.0000**	**0.0161**	**0.0161**		**254.1388**	**254.1388**	**4.8900e-003**	**4.6600e-003**	**255.6496**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Research & Development	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Research & Development	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Research & Development	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

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	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
NaturalGas Unmitigated	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394

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					
Research & Development	2160.1	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
Total		**0.0233**	**0.2118**	**0.1779**	**1.2700e-003**		**0.0161**	**0.0161**		**0.0161**	**0.0161**		**254.1293**	**254.1293**	**4.8700e-003**	**4.6600e-003**	**255.6394**

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					
Research & Development	2.1601	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
Total		**0.0233**	**0.2118**	**0.1779**	**1.2700e-003**		**0.0161**	**0.0161**		**0.0161**	**0.0161**		**254.1293**	**254.1293**	**4.8700e-003**	**4.6600e-003**	**255.6394**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Unmitigated	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - R&D

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Research & Development	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS goal is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Grading -

Vehicle Trips - No CalEEMod vehicle emission analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - R&D - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	1.90	0.00
tblVehicleTrips	SU_TR	1.11	0.00
tblVehicleTrips	WD_TR	8.11	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
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
Total	**0.9968**	**0.2118**	**0.1823**	**1.2700e-003**	**0.0000**	**0.0161**	**0.0161**	**0.0000**	**0.0161**	**0.0161**		**254.1388**	**254.1388**	**4.8900e-003**	**4.6600e-003**	**255.6496**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
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
Total	**0.9968**	**0.2118**	**0.1823**	**1.2700e-003**	**0.0000**	**0.0161**	**0.0161**	**0.0000**	**0.0161**	**0.0161**		**254.1388**	**254.1388**	**4.8900e-003**	**4.6600e-003**	**255.6496**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Research & Development	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Research & Development	16.60	8.40	6.90	33.00	48.00	19.00	82	15	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Research & Development	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

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	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
NaturalGas Unmitigated	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394

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					
Research & Development	2160.1	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
Total		**0.0233**	**0.2118**	**0.1779**	**1.2700e-003**		**0.0161**	**0.0161**		**0.0161**	**0.0161**		**254.1293**	**254.1293**	**4.8700e-003**	**4.6600e-003**	**255.6394**

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					
Research & Development	2.1601	0.0233	0.2118	0.1779	1.2700e-003		0.0161	0.0161		0.0161	0.0161		254.1293	254.1293	4.8700e-003	4.6600e-003	255.6394
Total		**0.0233**	**0.2118**	**0.1779**	**1.2700e-003**		**0.0161**	**0.0161**		**0.0161**	**0.0161**		**254.1293**	**254.1293**	**4.8700e-003**	**4.6600e-003**	**255.6394**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Unmitigated	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Shopping Ctr

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Regional Shopping Center	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Grading -

Vehicle Trips - No CalEEMod vehicle emissions analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Shopping Ctr - Los Angeles-South Coast County, Annual

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	WD_TR	42.70	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Energy	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	97.4965	97.4965	4.0700e-003	8.7000e-004	97.8576
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	9.2848	0.0000	9.2848	0.5487	0.0000	23.0027
Water						0.0000	0.0000		0.0000	0.0000	1.0237	10.1934	11.2171	0.1056	2.5700e-003	14.6222
Total	**0.1780**	**3.5000e-003**	**3.4900e-003**	**2.0000e-005**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**10.3085**	**107.6910**	**117.9995**	**0.6584**	**3.4400e-003**	**135.4837**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Energy	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	97.4965	97.4965	4.0700e-003	8.7000e-004	97.8576
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	9.2848	0.0000	9.2848	0.5487	0.0000	23.0027
Water						0.0000	0.0000		0.0000	0.0000	1.0237	10.1934	11.2171	0.1056	2.5700e-003	14.6222
Total	**0.1780**	**3.5000e-003**	**3.4900e-003**	**2.0000e-005**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**10.3085**	**107.6910**	**117.9995**	**0.6584**	**3.4400e-003**	**135.4837**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Regional Shopping Center	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Regional Shopping Center	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	93.6843	93.6843	4.0000e-003	8.0000e-004	94.0228
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	93.6843	93.6843	4.0000e-003	8.0000e-004	94.0228
NaturalGas Mitigated	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.8122	3.8122	7.0000e-005	7.0000e-005	3.8349
NaturalGas Unmitigated	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.8122	3.8122	7.0000e-005	7.0000e-005	3.8349

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					
Regional Shopping Center	71438.4	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.8122	3.8122	7.0000e-005	7.0000e-005	3.8349
Total		**3.9000e-004**	**3.5000e-003**	**2.9400e-003**	**2.0000e-005**		**2.7000e-004**	**2.7000e-004**		**2.7000e-004**	**2.7000e-004**	**0.0000**	**3.8122**	**3.8122**	**7.0000e-005**	**7.0000e-005**	**3.8349**

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					
Regional Shopping Center	71438.4	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.8122	3.8122	7.0000e-005	7.0000e-005	3.8349
Total		**3.9000e-004**	**3.5000e-003**	**2.9400e-003**	**2.0000e-005**		**2.7000e-004**	**2.7000e-004**		**2.7000e-004**	**2.7000e-004**	**0.0000**	**3.8122**	**3.8122**	**7.0000e-005**	**7.0000e-005**	**3.8349**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Regional Shopping Center	588060	93.6843	4.0000e-003	8.0000e-004	94.0228
Total		**93.6843**	**4.0000e-003**	**8.0000e-004**	**94.0228**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Regional Shopping Center	588060	93.6843	4.0000e-003	8.0000e-004	94.0228
Total		**93.6843**	**4.0000e-003**	**8.0000e-004**	**94.0228**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Unmitigated	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Total	**0.1776**	**0.0000**	**5.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1500e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Total	**0.1776**	**0.0000**	**5.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	11.2171	0.1056	2.5700e-003	14.6222
Unmitigated	11.2171	0.1056	2.5700e-003	14.6222

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Regional Shopping Center	3.2266 / 1.97759	11.2171	0.1056	2.5700e-003	14.6222
Total		**11.2171**	**0.1056**	**2.5700e-003**	**14.6222**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Regional Shopping Center	3.2266 / 1.97759	11.2171	0.1056	2.5700e-003	14.6222
Total		**11.2171**	**0.1056**	**2.5700e-003**	**14.6222**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	9.2848	0.5487	0.0000	23.0027
Unmitigated	9.2848	0.5487	0.0000	23.0027

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Regional Shopping Center	45.74	9.2848	0.5487	0.0000	23.0027
Total		**9.2848**	**0.5487**	**0.0000**	**23.0027**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Regional Shopping Center	45.74	9.2848	0.5487	0.0000	23.0027
Total		**9.2848**	**0.5487**	**0.0000**	**23.0027**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Shopping Ctr

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Regional Shopping Center	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Grading -

Vehicle Trips - No CalEEMod vehicle emissions analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Shopping Ctr - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	WD_TR	42.70	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
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
Total	**0.9756**	**0.0192**	**0.0205**	**1.2000e-004**	**0.0000**	**1.4800e-003**	**1.4800e-003**	**0.0000**	**1.4800e-003**	**1.4800e-003**		**23.0356**	**23.0356**	**4.6000e-004**	**4.2000e-004**	**23.1731**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
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
Total	**0.9756**	**0.0192**	**0.0205**	**1.2000e-004**	**0.0000**	**1.4800e-003**	**1.4800e-003**	**0.0000**	**1.4800e-003**	**1.4800e-003**		**23.0356**	**23.0356**	**4.6000e-004**	**4.2000e-004**	**23.1731**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Regional Shopping Center	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Regional Shopping Center	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

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	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
NaturalGas Unmitigated	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629

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					
Regional Shopping Center	195.722	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
Total		**2.1100e-003**	**0.0192**	**0.0161**	**1.2000e-004**		**1.4600e-003**	**1.4600e-003**		**1.4600e-003**	**1.4600e-003**		**23.0261**	**23.0261**	**4.4000e-004**	**4.2000e-004**	**23.1629**

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					
Regional Shopping Center	0.195722	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
Total		**2.1100e-003**	**0.0192**	**0.0161**	**1.2000e-004**		**1.4600e-003**	**1.4600e-003**		**1.4600e-003**	**1.4600e-003**		**23.0261**	**23.0261**	**4.4000e-004**	**4.2000e-004**	**23.1629**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Unmitigated	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Shopping Ctr

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Regional Shopping Center	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS is same as Senate Bill 350 50% RPS 2030 goal

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Grading -

Vehicle Trips - No CalEEMod vehicle emissions analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Shopping Ctr - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	WD_TR	42.70	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
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
Total	**0.9756**	**0.0192**	**0.0205**	**1.2000e-004**	**0.0000**	**1.4800e-003**	**1.4800e-003**	**0.0000**	**1.4800e-003**	**1.4800e-003**		**23.0356**	**23.0356**	**4.6000e-004**	**4.2000e-004**	**23.1731**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
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
Total	**0.9756**	**0.0192**	**0.0205**	**1.2000e-004**	**0.0000**	**1.4800e-003**	**1.4800e-003**	**0.0000**	**1.4800e-003**	**1.4800e-003**		**23.0356**	**23.0356**	**4.6000e-004**	**4.2000e-004**	**23.1731**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/1/2017	11/1/2017	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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Regional Shopping Center	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Regional Shopping Center	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

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	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
NaturalGas Unmitigated	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629

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					
Regional Shopping Center	195.722	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
Total		**2.1100e-003**	**0.0192**	**0.0161**	**1.2000e-004**		**1.4600e-003**	**1.4600e-003**		**1.4600e-003**	**1.4600e-003**		**23.0261**	**23.0261**	**4.4000e-004**	**4.2000e-004**	**23.1629**

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					
Regional Shopping Center	0.195722	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
Total		**2.1100e-003**	**0.0192**	**0.0161**	**1.2000e-004**		**1.4600e-003**	**1.4600e-003**		**1.4600e-003**	**1.4600e-003**		**23.0261**	**23.0261**	**4.4000e-004**	**4.2000e-004**	**23.1629**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Unmitigated	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Strip Mall

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS goal is same as Senate Bill 350 50% RPS 2030 goal.

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Grading -

Vehicle Trips - No CalEEmod vehicle emissions analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Strip Mall - Los Angeles-South Coast County, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	WD_TR	44.32	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Energy	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	97.4965	97.4965	4.0700e-003	8.7000e-004	97.8576
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	9.2848	0.0000	9.2848	0.5487	0.0000	23.0027
Water						0.0000	0.0000		0.0000	0.0000	1.0237	10.1934	11.2171	0.1056	2.5700e-003	14.6222
Total	**0.1780**	**3.5000e-003**	**3.4900e-003**	**2.0000e-005**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**10.3085**	**107.6910**	**117.9995**	**0.6584**	**3.4400e-003**	**135.4837**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Energy	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	97.4965	97.4965	4.0700e-003	8.7000e-004	97.8576
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	9.2848	0.0000	9.2848	0.5487	0.0000	23.0027
Water						0.0000	0.0000		0.0000	0.0000	1.0237	10.1934	11.2171	0.1056	2.5700e-003	14.6222
Total	**0.1780**	**3.5000e-003**	**3.4900e-003**	**2.0000e-005**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**0.0000**	**2.7000e-004**	**2.7000e-004**	**10.3085**	**107.6910**	**117.9995**	**0.6584**	**3.4400e-003**	**135.4837**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Strip Mall	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Strip Mall	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	93.6843	93.6843	4.0000e-003	8.0000e-004	94.0228
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	93.6843	93.6843	4.0000e-003	8.0000e-004	94.0228
NaturalGas Mitigated	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.8122	3.8122	7.0000e-005	7.0000e-005	3.8349
NaturalGas Unmitigated	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.8122	3.8122	7.0000e-005	7.0000e-005	3.8349

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					
Strip Mall	71438.4	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.8122	3.8122	7.0000e-005	7.0000e-005	3.8349
Total		**3.9000e-004**	**3.5000e-003**	**2.9400e-003**	**2.0000e-005**		**2.7000e-004**	**2.7000e-004**		**2.7000e-004**	**2.7000e-004**	**0.0000**	**3.8122**	**3.8122**	**7.0000e-005**	**7.0000e-005**	**3.8349**

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					
Strip Mall	71438.4	3.9000e-004	3.5000e-003	2.9400e-003	2.0000e-005		2.7000e-004	2.7000e-004		2.7000e-004	2.7000e-004	0.0000	3.8122	3.8122	7.0000e-005	7.0000e-005	3.8349
Total		**3.9000e-004**	**3.5000e-003**	**2.9400e-003**	**2.0000e-005**		**2.7000e-004**	**2.7000e-004**		**2.7000e-004**	**2.7000e-004**	**0.0000**	**3.8122**	**3.8122**	**7.0000e-005**	**7.0000e-005**	**3.8349**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Strip Mall	588060	93.6843	4.0000e-003	8.0000e-004	94.0228
Total		**93.6843**	**4.0000e-003**	**8.0000e-004**	**94.0228**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Strip Mall	588060	93.6843	4.0000e-003	8.0000e-004	94.0228
Total		**93.6843**	**4.0000e-003**	**8.0000e-004**	**94.0228**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Unmitigated	0.1776	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Total	**0.1776**	**0.0000**	**5.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1500e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0202					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1574					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	0.0000	5.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0800e-003	1.0800e-003	0.0000	0.0000	1.1500e-003
Total	**0.1776**	**0.0000**	**5.5000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.0800e-003**	**1.0800e-003**	**0.0000**	**0.0000**	**1.1500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	11.2171	0.1056	2.5700e-003	14.6222
Unmitigated	11.2171	0.1056	2.5700e-003	14.6222

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Strip Mall	3.2266 / 1.97759	11.2171	0.1056	2.5700e-003	14.6222
Total		**11.2171**	**0.1056**	**2.5700e-003**	**14.6222**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Strip Mall	3.2266 / 1.97759	11.2171	0.1056	2.5700e-003	14.6222
Total		**11.2171**	**0.1056**	**2.5700e-003**	**14.6222**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	9.2848	0.5487	0.0000	23.0027
Unmitigated	9.2848	0.5487	0.0000	23.0027

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Strip Mall	45.74	9.2848	0.5487	0.0000	23.0027
Total		**9.2848**	**0.5487**	**0.0000**	**23.0027**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Strip Mall	45.74	9.2848	0.5487	0.0000	23.0027
Total		**9.2848**	**0.5487**	**0.0000**	**23.0027**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Strip Mall

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS goal is same as Senate Bill 350 50% RPS 2030 goal.

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Grading -

Vehicle Trips - No CalEEmod vehicle emissions analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Strip Mall - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	WD_TR	44.32	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
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
Total	**0.9756**	**0.0192**	**0.0205**	**1.2000e-004**	**0.0000**	**1.4800e-003**	**1.4800e-003**	**0.0000**	**1.4800e-003**	**1.4800e-003**		**23.0356**	**23.0356**	**4.6000e-004**	**4.2000e-004**	**23.1731**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
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
Total	**0.9756**	**0.0192**	**0.0205**	**1.2000e-004**	**0.0000**	**1.4800e-003**	**1.4800e-003**	**0.0000**	**1.4800e-003**	**1.4800e-003**		**23.0356**	**23.0356**	**4.6000e-004**	**4.2000e-004**	**23.1731**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Strip Mall	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Strip Mall	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

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	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
NaturalGas Unmitigated	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629

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					
Strip Mall	195.722	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
Total		**2.1100e-003**	**0.0192**	**0.0161**	**1.2000e-004**		**1.4600e-003**	**1.4600e-003**		**1.4600e-003**	**1.4600e-003**		**23.0261**	**23.0261**	**4.4000e-004**	**4.2000e-004**	**23.1629**

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					
Strip Mall	0.195722	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
Total		**2.1100e-003**	**0.0192**	**0.0161**	**1.2000e-004**		**1.4600e-003**	**1.4600e-003**		**1.4600e-003**	**1.4600e-003**		**23.0261**	**23.0261**	**4.4000e-004**	**4.2000e-004**	**23.1629**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Unmitigated	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Long Beach Land Use Elements - Strip Mall

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Strip Mall	43.56	1000sqft	1.00	43,560.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2040
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	351.22	**CH4 Intensity (lb/MWhr)**	0.015	**N2O Intensity (lb/MWhr)**	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Electricity assume 2040 RPS goal is same as Senate Bill 350 50% RPS 2030 goal.

Land Use -

Construction Phase - No construction analysis

Off-road Equipment - No construction equipment

Trips and VMT - No construction worker trips

On-road Fugitive Dust - No construction dust

Grading -

Vehicle Trips - No CalEEmod vehicle emissions analysis, refer to separate VMT emission analysis

Long Beach Land Use Elements - Strip Mall - Los Angeles-South Coast County, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOnRoadDust	AverageVehicleWeight	2.40	0.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.015
tblProjectCharacteristics	CO2IntensityFactor	702.44	351.22
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblVehicleTrips	ST_TR	42.04	0.00
tblVehicleTrips	SU_TR	20.43	0.00
tblVehicleTrips	WD_TR	44.32	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
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
Total	**0.9756**	**0.0192**	**0.0205**	**1.2000e-004**	**0.0000**	**1.4800e-003**	**1.4800e-003**	**0.0000**	**1.4800e-003**	**1.4800e-003**		**23.0356**	**23.0356**	**4.6000e-004**	**4.2000e-004**	**23.1731**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Energy	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
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
Total	**0.9756**	**0.0192**	**0.0205**	**1.2000e-004**	**0.0000**	**1.4800e-003**	**1.4800e-003**	**0.0000**	**1.4800e-003**	**1.4800e-003**		**23.0356**	**23.0356**	**4.6000e-004**	**4.2000e-004**	**23.1731**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	11/15/2017	11/14/2017	5	0	

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
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

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	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Site Preparation - 2017

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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	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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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
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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Strip Mall	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Strip Mall	16.60	8.40	6.90	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Strip Mall	0.537194	0.043713	0.210127	0.116181	0.013260	0.006460	0.022765	0.039037	0.002776	0.001599	0.005341	0.000737	0.000810

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	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
NaturalGas Unmitigated	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629

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					
Strip Mall	195.722	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
Total		**2.1100e-003**	**0.0192**	**0.0161**	**1.2000e-004**		**1.4600e-003**	**1.4600e-003**		**1.4600e-003**	**1.4600e-003**		**23.0261**	**23.0261**	**4.4000e-004**	**4.2000e-004**	**23.1629**

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					
Strip Mall	0.195722	2.1100e-003	0.0192	0.0161	1.2000e-004		1.4600e-003	1.4600e-003		1.4600e-003	1.4600e-003		23.0261	23.0261	4.4000e-004	4.2000e-004	23.1629
Total		**2.1100e-003**	**0.0192**	**0.0161**	**1.2000e-004**		**1.4600e-003**	**1.4600e-003**		**1.4600e-003**	**1.4600e-003**		**23.0261**	**23.0261**	**4.4000e-004**	**4.2000e-004**	**23.1629**

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	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Unmitigated	0.9735	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

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	0.1106					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.8625					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.0000e-004	4.0000e-005	4.4200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.5300e-003	9.5300e-003	2.0000e-005		0.0102
Total	**0.9735**	**4.0000e-005**	**4.4200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.5300e-003**	**9.5300e-003**	**2.0000e-005**		**0.0102**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX B

CITY OF LONG BEACH CLIMATE ACTION AND ADAPTATION PLAN GHG EMISSIONS REDUCTION TARGET OPTIONS MEMO

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CARLSBAD
FRESNO
IRVINE
LOS ANGELES
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

MEMORANDUM

DATE: May 22, 2019

TO: Alison Spindler, AICP, Planner & Budget Specialist, City of Long Beach

FROM: Amy Fischer, Principal

SUBJECT: Introduction to the City of Long Beach Climate Action and Adaptation Plan GHG Emissions Reduction Target Options Memo

In 2017, the City of Long Beach began development of a Climate Action and Adaptation Plan (CAAP). The CAAP aims to reduce communitywide GHG emissions, and help the city adapt to future climate change impacts. As part of the CAAP, the City conducted a communitywide GHG inventory to identify its baseline emissions footprint, and is developing business-as-usual forecasts of emissions based on anticipated growth in population, employment, housing, and other factors in the community. In the next stages of the project, the City will establish GHG reduction targets and define local actions to achieve those targets.

The CAAP will provide a framework for creating or updating policies, programs, practices, and incentives for Long Beach residents and businesses to reduce the City's GHG footprint, and ensure the community and physical assets are better protected from the impacts of climate change. The policies, programs, practices, and incentives included in the CAAP will relate to the following:

- Public Health
- Water Supply
- Housing & Neighborhoods
- Coastal Resources
- Parks and Open Space
- Transportation
- Energy
- Wastewater/Stormwater

In preparation of the City's CAAP, baseline (2015) and future year (2040) GHG inventories have been prepared for the City.

For purposes of the EIR analysis, as the horizon year for the proposed project is 2040, the per service population emissions rate is evaluated to a year 2040 efficiency target, which is used to determine project significance for the LUE PEIR as it relates to greenhouse gas impacts. As part of the City's CAAP, although not yet adopted, a GHG Emissions Reduction Target Options Memo (May 2019) was prepared and included six options (Target Options A through F) for achieving GHG reductions at the

local level. Of these six options, three are recommended because they align most closely with the current guidance from the California Air Resources Board (CARB) and the Governor's Office of Planning and Research (OPR). From those three options that follow CARB and OPR guidance most closely, the Target Option D, "Local Emissions Source-Based Intensity Targets" has been identified by the City and its CAAP Scientific Working Group as the preferable target for the purposes of the CAAP. Although another target may ultimately be selected as the CAAP is finalized and adopted, for the purposes of the LUE EIR analysis, Target Option D will be used. Target Option D represents both per capita and per service population[1] emissions targets based on the sub-set of statewide emissions sectors that are included in City's CAAP GHG emissions inventory (for example, sectors such as agriculture that do not existing in the City, and sectors like aviation that the City does not control, are not included). The GHG Emission Reduction Target Options Memo provides the supporting documentation needed as substantial evidence to support the use of the identified targets. As outlined in the GHG Emissions Reduction Target Options Memo, Target Option D takes those sub-sectors and creates an efficiency target based on State GHG reduction goals for 2030 and 2050. Target Option D consists of a 2040 per capita efficiency target of 2.79 metric tons (MT) of carbon dioxide equivalent (CO_2e) per year per capita (or MT CO_2e/yr/capita); or expressed another way, 1.92 MT CO_2e per service population, per year. This efficiency metric would achieve per service population emissions align with the State's reduction goals, and would be consistent with the requirements of the Global Covenant of Mayors.

For purposes of this analysis, the total GHG emissions associated with the 2040 With Project Scenario is divided by the total service population associated with the anticipated General Plan buildout to determine whether the proposed project would result in a significant GHG impact.

Attachment: City of Long Beach Climate Action and Adaptation Plan GHG Emissions Reduction Target Options Memo #2 – 2045 Carbon Neutrality (May 2019)

[1] Service Population is the sum of the residential population and workplace employees within the City.

City of Long Beach Climate Action and Adaptation Plan

GHG Emissions Reduction Target Options Memo #2 – 2045 Carbon Neutrality

This memorandum (memo) presents options and considerations for establishing 2030 and 2040 GHG targets and a 2045 aspirational goal in the City's Climate Action and Adaptation Plan (CAAP). The options are informed by State guidance on the topic, science-based guidance, the City's aspirations and priorities, and targets adopted by other local governments in the area.

Establishing local greenhouse gas (GHG) emissions targets can be used to:

- Comply with requirements of the Global Covenant of Mayors, to which the City of Long of Beach has been a signatory since 2015,
- Demonstrate the City's commitment to global efforts on climate change,
- Illustrate the relationship between the City's reduction target and the State's own reduction goals,
- Provide a goal post against which to evaluate the cumulative progress of the City's GHG reduction actions over time, and
- Demonstrate a level of GHG emissions below which the City would have less than cumulatively considerable GHG impacts.[1]

We have prepared this memo so that portions of the first section can be included in the CAAP document (with minor narrative revisions), and the second, more technical section can be potentially included as a Target-Setting Considerations Appendix to the CAAP in support of the environmental review analysis.

Section 1 – GHG Target Considerations and Options

A. Introduction

In 2017, the City of Long Beach began development of a Climate Action and Adaptation Plan (CAAP). The CAAP aims to reduce communitywide GHG emissions, and help the city adapt to future climate change impacts. As a first step, the City conducted a communitywide GHG inventory to identify its baseline emissions footprint, and developed business-as-usual forecasts of emissions based on anticipated growth in population, employment, housing, and other factors in the community. In the next stages of the project, the City will establish GHG reduction targets and define local actions to achieve those targets.

While there will be fiscal, economic, and public health benefits, one of the CAAP's primary purposes is to reduce GHG emissions. GHG targets serve as aspirational metrics to help focus local actions to achieve that end. Establishing clear and attainable targets can also motivate community members and City staff, help guide long-term strategies, and increase transparency and accountability regarding the CAAP's objectives.

There are several questions to consider when defining local GHG targets.

- **What type of targets can be used?**

  Targets can be set based on absolute emissions reductions or to reflect emissions intensity improvements in the community.

[1] *The City's target, along with reduction strategies necessary to achieve this target will facilitate tiering and streamlining for proposed projects under the provisions of CEQA Guidelines Section 15183.5.*

- **What guidance is available to direct local governments in setting GHG targets?**

  California has established several statewide GHG targets through legislative action that can help to inform local GHG target selection. State agencies, including the California Air Resources Board (ARB) and the Governor's Office of Planning and Research (OPR), have also issued guidance to local governments on this topic. The California Environmental Quality Act (CEQA) Guidelines also provide guidance on target selection for cities that would use their GHG reduction strategy to streamline environmental review for future development projects.

- **What does the climate science say?**

  According to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), targets adopted to reduce GHG emissions are "science-based" if they are consistent with the magnitude of emission reductions required to limit the increase of global temperatures to 2°C above pre-industrial temperatures. Based on the IPCC's *Special Report: Global Warming of 1.5°C* from 2018, scenarios to avoid overshoot of the 2°C target should reduce CO_2 emissions 25% by 2030 and reach net zero emissions around 2070; to achieve no or limited overshoot of the 1.5°C target, net zero emissions should be achieved globally around 2050.[2]Timing of the reductions is also important. The report notes that "every year's delay before initiating emission reductions decreases by approximately two years the remaining time available to reach zero emissions on a pathway still remaining below 1.5°C."[3]

- **What is the City's emissions profile?**

  The City's 2015 emissions inventory totals 3.1 million metric tons of carbon dioxide equivalent (MMT CO_2e)[4] with the majority coming from transportation (50%) and building energy use (44%). A communitywide GHG reduction target should take into account the sources of emissions and a city's ability to influence its emission sources.

- **What are the City's aspirations and commitments?**

  The City is a leader in environmental sustainability initiatives, including:

  - In 2015, Mayor Robert Garcia signed the Compact of Mayors (now the Global Covenant of Mayors) to join the world's largest coalition of city governments to address climate change.[5]
  - In 2017, Mayor Garcia joined 406 mayors across the United States in pledging to continue the goals of the Paris Climate Agreement to make sustainable changes to limit global temperature rise to well below 2°C.[6]
  - In 2019, Mayor Garcia encouraged the City to achieve a carbon neutrality goal by 2045, consistent with Executive Order B-55-18

  The CAAP is intended to chart a pathway to help the City fulfill these commitments.

- **What timeframe should the targets address?**

  Near- and mid-term targets can be useful in setting the City on a pathway toward more aggressive longer-term targets. The specific target years can be chosen based on California's GHG targets, local planning priorities (such as the City's General Plan), or other considerations.

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[2] *IPCC. Special Report, Global Warming of 1.5°C, Summary for Policy Makers. Available: https://www.ipcc.ch/sr15/*

[3] *ibid. Chapter 1, Section 1.2.3.1, page 61.*

[4] *The City's GPC Basic inventory totals 3.1 million MT CO_2e/yr. The City also calculated several GPC Basic+ emissions sources to provide a more complete picture of community emissions, which brings the total emissions to 3.3 million MT CO_2e/yr. However, for CAAP purposes, the City has established GHG targets and actions based on the GPC Basic inventory, since these emissions represent sources over which the City has more direct control.*

[5] *City of Long Beach Press Release "What is Long Beach doing about Climate Change" (11/10/2015) Available: http://www.longbeach.gov/mayor/news/compact/*

[6] *City of Long Beach Press Release "Long Beach Joins Paris Agreement" (06/02/2017) Available: http://www.longbeach.gov/mayor/news/long-beach-joins-paris-agreement/*

- **What kind of targets are other local governments in the area using?**

  Long Beach is not acting alone in its efforts to reduce GHG emissions, and the targets of other local governments can also help to inform the City's own target selection process. Table 3 presents a sample of other local governments' GHG targets.

B. Target Types

GHG targets can be expressed as either ***mass emissions*** targets or ***emissions intensity*** targets.

Mass Emissions Targets

Mass emissions targets establish an absolute emissions level to be achieved by a target year, such as 100,000 metric tons of carbon dioxide equivalent per year (MT CO_2e/yr) by 2020. Typically, mass emissions targets are expressed as a percent below the emissions level of some base year, such as 80% below 1990 emissions by 2050. Mass emissions targets are often used in the context of deep GHG reductions or carbon neutrality, described in detail below.

Deep GHG Reduction Targets

This term refers to the common long-term GHG reduction target set by cities, aiming to reduce emissions to approximately 80% below baseline levels by 2050 in order to limit the global temperature increase to less than 2°C compared to pre-industrial temperatures. Many cities leading the effort on GHG mitigation set this long-term target at the start of their climate planning processes (and since that time, some of these same cities have revised their long-term targets to aim for carbon neutrality, as described below). Sometimes, this type of target is also referred to as a ***climate***-neutral target, as it is intended to neutralize the adverse impacts of climate change. The distinction between a climate-neutral target and a zero carbon or a net zero carbon target is noteworthy. While the term "climate-neutral" may be useful for marketing and communication purposes, and while the actions necessary to achieve this target certainly need to be ambitious, this term should not be confused with a zero carbon or net zero carbon target, which requires bold and systemic changes to core city transportation, buildings, and waste systems at a level beyond deep carbon reductions.

Carbon Neutrality Targets

In describing community GHG emissions, the term 'carbon neutrality' is often used interchangeably with 'zero carbon emissions', and 'net zero carbon emissions'. It is important to clarify and define each of these terms.

Zero Carbon Emissions: In its strictest sense, this term refers to a scenario under which a city completely eliminates all sources of direct GHG emissions associated with its activities. While theoretically possible, this type of target is very challenging to achieve due to the fact that some sources of GHG emissions are near impossible to eliminate. Even if a community were to power its built environment and transportation sectors with 100% renewable energy, some GHG emissions from wastewater treatment, solid waste management, refrigeration, or fire suppression are not currently feasible to eliminate. It is worth noting that based on our review of best practices, no city has yet endeavored to establish a goal to achieve zero carbon emissions in the strictest sense of the definition.

Net Zero Carbon Emissions: This term means that the ***net*** GHG emissions associated with a city are zero. Under this scenario, some residual emissions may be produced by a community each year, but they can be fully balanced by investing in offsetting activities such as generating additional renewable energy and providing it to consumers outside the community, biological carbon sequestration, green procurement strategies, or the purchase of verifiable carbon credits.

Intensity–Based Emissions Targets

Emissions intensity thresholds set a target level of emissions per population or per service population (i.e., local residents plus local jobs), such as 2.25 MT CO_2e per service population per year (MT CO_2e/SP/yr) by 2035. Intensity thresholds demonstrate a community's ability to grow population and employment, while emissions shrink on a per-unit basis; in effect, a community could be growing more efficiently from an emissions standpoint. In this case, total emissions within a community may increase while still achieving an intensity target, as long as service population is growing faster than emissions.

Mass emissions and intensity-based targets are both useful to consider when evaluating appropriate emissions reduction targets, and OPR suggests that local governments consider both types in their climate action plans.

Mass or Intensity-based Activity-Specific Targets

While the types of targets described above focus on GHG emissions as a metric for measurement of progress, leading cities are also adopting goals that focus specifically on the activities causing GHG emissions, such as energy consumption in the building and transportation sectors or solid waste generation. These activity-specific targets can be helpful in communicating the City's GHG goals more clearly and tracking progress within individual activities or sectors. However, they should not be used as a replacement for an overarching communitywide GHG target that covers all sectors and emissions activities because it can be difficult to understand how a specific activity target relates to total communitywide emissions. This can be especially problematic when using a CAP to support CEQA streamlining for future projects where it is difficult to demonstrate how achievement of an activity target results in a less than cumulatively considerable impact to GHG emissions.

Mass Targets Related to Net-Zero Fossil Fuel Consumption or 100% Renewable Energy Use: This type of target focuses on the activity that generates the majority of overall GHG emissions at the community level – fossil fuel combustion for energy generation used in buildings, vehicles, and equipment. Some cities use this target because they believe it is easier to understand than a GHG reduction target, and is therefore more inspirational than a GHG reduction target. Some cities have applied this target strictly to electricity generation or related to a specific sector (like transportation), while others intend it to be used for all fuel sources.

Intensity-based Activity Targets or Budgets: Using the concept of intensity-based targets, many cities have applied these targets to key consumption activities in daily urban life to create a "budget", such as reducing per-capita electricity consumption or driving by a certain percent by a future year. These forms of targets can make it easier to communicate the role of individual community members in reducing GHG emissions and achieving targets.

C. Guidance on Local Government Target Setting

Guidance on local government target setting in California is primarily based on three sources: the State's own GHG targets, ARB's Climate Change Scoping Plan (Scoping Plan), and OPR's General Plan Guidelines. Together, these sources help to frame the context for local GHG targets. For climate action plans that are designed to provide CEQA streamlining for future projects, precedent case law is another source of guidance for reduction targets, although this guidance is primarily based on the State's legislative GHG reduction targets.

State GHG Targets

California's statewide GHG targets are defined through adopted legislation (2020 and 2030 target years) and Executive Orders (2045 and 2050 target year), as shown in Table 1.

Table 1 State of California Greenhouse Gas Targets		
Target Year	**Target**	**Corresponding Legislation**
2020	Return to 1990 GHG levels by 2020	Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006
2030	40% below 1990 levels by 2030	Senate Bill (SB) 32, the Global Warming Solutions Act of 2006
2045	Carbon neutrality by 2045	Executive Order (EO) B-55-18 of 2018
2050	80% below 1990 levels by 2050[7]	EO S-3-05 of 2005

Some cities have simply adopted the State's exact targets, and others have calculated variations of them to more accurately reflect local demographic and economic conditions. There are four primary considerations when using the State's targets as the basis for local targets:

1. How can 1990 emissions levels be approximated locally?
2. What is the local baseline year?
3. What emissions will be analyzed locally?
4. What degree of influence does the City have over different emissions sources?

Section 2 of this memo provides the supporting calculations to estimate local emissions targets based on the State's GHG targets. Following is a discussion oriented around these four questions related to the direct use of the State's reduction targets.

Approximate 1990 Emissions Levels

The State's GHG targets have been established as mass emissions targets and are often referenced in local government target setting. However, the State's specific targets are each benchmarked to a 1990 GHG inventory, and, for most local governments, it is technically challenging to back-cast an inventory for that year. Guidance in ARB's 2008 Climate Change Scoping Plan identified local governments as "essential partners" in achieving the State's GHG goals, and encouraged adoption of local GHG targets "…that parallel the State's commitment to reduce greenhouse gas emissions by approximately 15% from current levels by 2020." Many local governments followed this guidance for their near-term target as a way to approximate a return to 1990 levels (i.e., the State's GHG target for 2020). This helps to explain why many climate action plans in California have a 2020 target defined as 15% below baseline levels.

Consider the Local Baseline Year

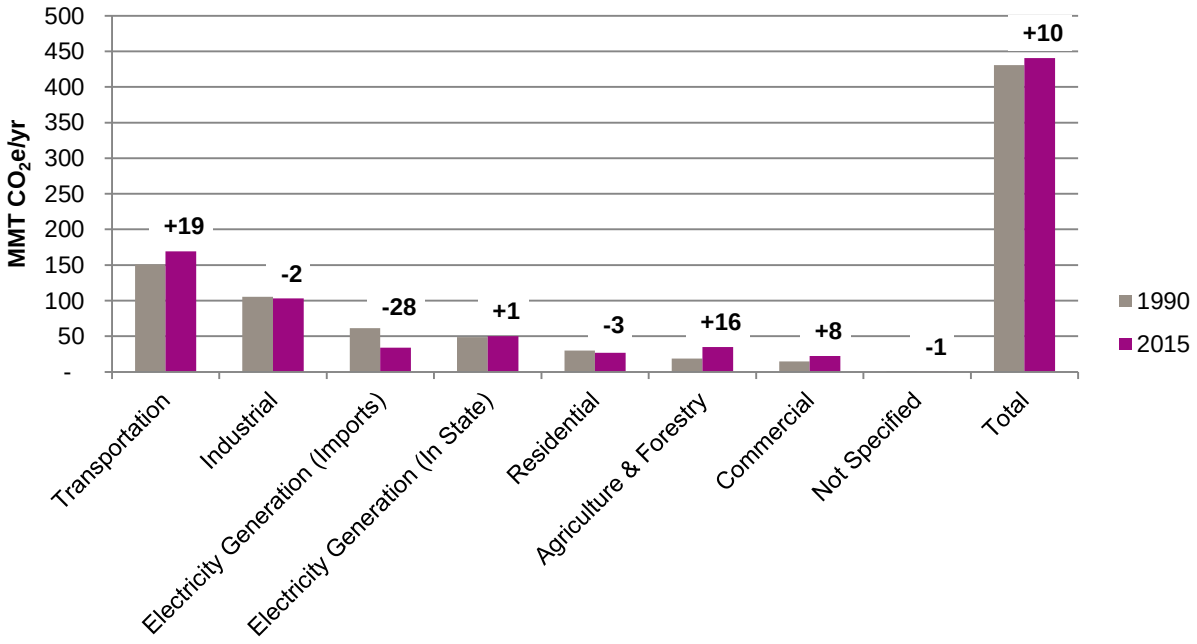
It is worth noting that the original guidance suggesting a 15% reduction below current GHG levels approximates a return to 1990 levels was based on an earlier version of the State's emissions forecasts. Following release of the aforementioned guidance, the 2008 economic recession occurred, resulting in slower emissions growth statewide than previously anticipated. Further, the 15% reduction target value was calculated relative to a 2008 baseline year. For cities with different baseline inventory years, the corresponding 2020 target value would be slightly different. ARB also subsequently revised the statewide 1990 inventory, which altered some of the underlying calculations associated with the 1990 target value.

[7] *The State's 2050 target was based on leading research at the time published by the IPCC regarding the emissions reductions required of developed countries to stabilize atmospheric carbon dioxide levels at approximately 450 parts per million (ppm) setting an upper limit to global temperature increase to 2° Celsius or less to avoid catastrophic impacts of global climate change. See United Nations International Panel on Climate Change, Fourth Assessment Report: Working Group III, Mitigation of Climate Change, 2007. Available: https://www.ipcc.ch/publications_and_data/ar4/wg3/en/ch13-ens13-3-3-3.html*

Based on the State's current 1990 inventory (and therefore, its 2020 target emissions level) and the 2015 statewide inventory, statewide emissions reductions of 2.4% below 2015 levels would be required to return to 1990 emissions levels. This value reflects the substantial success of emissions-reduction programs implemented across California since the adoption of AB 32. It also highlights the need to thoughtfully consider the selection of local GHG reduction targets with respect to now outdated guidance for local governments

Figure 1 shows how the statewide emissions have changed since 1990. Emissions increases are primarily attributed to the transportation and agriculture & forestry sectors while substantial emissions reductions occurred in the imported electricity sector during the same period.

Figure 1 – Statewide Emissions Change by Sector[8]



Evaluate Local Emissions Sources

As a final consideration for the State's GHG targets, it is important to understand the sources of emissions included in the statewide inventory and how they differ from the sources typically represented at the community inventory level. Certain emissions sectors are not included or applicable locally, but are included statewide based on the prevailing GHG inventory methodologies. For example, industrial process-related emissions occur within California and are included in the statewide inventory, but these same sources do not occur locally in all jurisdictions and so would not be represented in all communitywide inventories. In addition, some emission sources that may have a local presence are outside the control of local lead agencies – for example, some industrial emissions sources are the purview of the air quality management district, and not the municipality. Therefore, the State's GHG targets should also be customized for use locally in a way that considers the presence or absence of certain emissions sectors and relative degree of municipal influence. This can be achieved by analyzing the sub-set of emissions sectors that will be included in the local GHG inventory. Section 2 presents the

[8] *Figure 1 shows the 1990 and 2015 emissions inventory results organized by economic sector categorization. 1990 inventory available: https://www.arb.ca.gov/cc/inventory/1990level/1990data.htm; 2015 inventory available: https://www.arb.ca.gov/cc/inventory/data/data.htm*

results of this customization analysis specific to Long Beach, should the City choose to define local targets based on the State's adopted targets.

Tailoring the reduction target to the specific local context also speaks to the direction from the California Supreme Court's 2015 decision in *Center for Biological Diversity v. California Department of Fish and Wildlife*,[9] commonly referenced as "Newhall Ranch." In Newhall Ranch, the Court indicated that the use of a State legislation-based GHG emissions significance threshold could be acceptable, so long as the administrative record supports how this threshold is appropriate for a specific project at a specific location.[10] Section 2 provides further detail on tailoring State guidance to local conditions.

ARB Climate Change Scoping Plan – 2008 and 2017

The 2008 Scoping Plan was developed to establish the State's pathway toward achievement of the AB 32 GHG target (i.e., return to 1990 levels by 2020). Within that document, ARB's original guidance to local governments was to adopt a GHG target of 15% reduction below current levels by 2020. Since publication of the 2008 Scoping Plan, SB 32 was adopted (2016) and directed a statewide 2030 GHG target (i.e., 40% below 1990 levels by 2030). ARB subsequently finalized a revised Scoping Plan in November 2017 to establish an achievement pathway for this new 2030 target.

The *2017 Climate Change Scoping Plan* provides the following updated guidance on target-setting for local governments:

> *"Recommended Local Plan-Level Greenhouse Gas Emissions Reduction Goals*
>
> CARB recommends statewide targets of no more than six metric tons CO_2e per capita by 2030 and no more than two metric tons CO_2e per capita by 2050. The statewide per capita targets account for all emissions sectors in the State, statewide population forecasts, and the statewide reductions necessary to achieve the 2030 statewide target under SB 32 and the longer term State emissions reduction goal of 80% below 1990 levels by 2050.
>
> …CARB recommends that local governments evaluate and adopt robust and quantitative locally-appropriate goals that align with the statewide per capita targets and the State's sustainable development objectives and develop plans to achieve the local goals. The statewide per capita goals were developed by applying the percent reductions necessary to reach the 2030 and 2050 climate goals (i.e., 40% and 80%, respectively) to the State's 1990 emissions limit established under AB 32. **Emissions inventories and reduction goals should be expressed in mass emissions, per capita emissions, and service population emissions**. To do this, local governments can start by developing a community-wide GHG emissions target consistent with the accepted protocols as outlined in OPR's General Plan Guidelines Chapter 8: Climate Change. They can then calculate GHG emissions thresholds by applying the percent reductions necessary to reach 2030 and 2050 climate goals (i.e., 40% and 80%, respectively) to their communitywide GHG emissions target. Since the statewide per capita targets are based on the statewide GHG emissions inventory that includes all emissions sectors in the State, it is appropriate for local jurisdictions to derive evidence-based local per capita goals based on local emissions sectors and population projections that are consistent with the framework used to develop the statewide per capita targets. The resulting GHG emissions trajectory should show a downward trend consistent with the statewide objectives"[11]

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[9] *62 Cal. 4th 204.*

[10] *Id. at 225-228 (EIR must compare the specific project's expected emissions to the existing physical environment in the project's vicinity – at a specific location - rather than a hypothetical business as usual (BAU) scenario based on statewide assumptions).*

[11] *California Air Resources Board. The 2017 Climate Change Scoping Plan, page 148. Available: https://www.arb.ca.gov/cc/scopingplan/revised2017spu.pdf. Accessed November 10, 2017.*

This guidance recommends use of an intensity target approach to derive local GHG targets for 2030 and 2050 target years, and suggests that local governments that had been using a 2020 target and planning horizon should update to targets that are focused on the 2030 and 2050 State goals:

> "Numerous local governments in California have already adopted GHG emissions reduction goals for year 2020 consistent with AB 32. CARB advises that local governments also develop community-wide GHG emissions reduction goals necessary to reach 2030 and 2050 climate goals. Emissions inventories and reduction goals should be expressed in mass emissions, per capita emissions, and service population emissions."[12]

The 2017 Scoping Plan recommends use of emissions intensity metrics to develop GHG targets for 2030 and beyond, and refers to OPR's recommendation that local governments define mass and intensity targets for the GHG reduction analyses. It also states that use of such targets as defined therein is consistent with the State's GHG goals, as well as the recently signed Under 2 MOU[13] international agreement and the Paris Agreement.[14]

Office of Planning and Research (OPR) General Plan Guidelines

OPR recently updated the General Plan Guidelines, including a chapter on climate change that describes target-setting considerations for local governments.[15] The Guidelines suggest that target setting should be context-specific and tailored to a community's unique characteristics, while generally relating to the State's GHG targets. The Guidelines refer readers to ARB's guidance for local action, and also recommend analyzing a community's mass emissions and emissions intensity to support a fuller understanding of the issue. It is worth noting that OPR's guidance **does not** define required targets for local governments to include in their CAPs.

D. Climate Science-Driven Targets

The Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) stipulates that targets adopted to reduce GHG emissions are "science-based" if they are consistent with the magnitude of emission reductions required to limit the increase of global temperatures to 2°C above pre-industrial temperatures. From a policy perspective, this was interpreted as a need to reduce emissions by at least 80% below 1990 baseline levels by 2050 (this is also California's 2050 statewide GHG target expressed in EO-S-3-05).

In late 2015, advisory bodies to the IPCC reported that limiting the average global temperature increase to 2°C may not be adequate, as a 2°C increase would still result in irreparable damage to ecosystems, food security, and sustainable development in the world's most vulnerable communities, particularly small island nations and low-lying plains. They proposed an aspirational target to limit the average global temperature increase to 1.5°C to avoid the most severe impacts to these geographies. This latest literature suggests the need for a more significant magnitude of GHG reductions by cities in the developed world. In order to achieve the targets in the Paris Agreement, global "net-zero" emissions

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[12] *California Air Resources Board. The 2017 Climate Change Scoping Plan, page 149. Available: https://www.arb.ca.gov/cc/scopingplan/revised2017spu.pdf. Accessed November 10, 2017.*

[13] *The Under 2 Memorandum of Understanding (MOU) is a subnational climate agreement developed by the Under2 Coalition to limit global temperature increases to less than 2°C through agreements from signatories to reduce their GHG emissions to 80-95% below 1990 levels by 2050 or limit to 2 MT CO_2e/capita per year by 2050. Available: http://under2mou.org/*

[14] *The Paris Agreement is an international agreement developed through the United Nations Framework Convention on Climate Change to keep global temperature rise this century below 2°C, and pursue efforts to limit temperature increases to 1.5°C. The Paris Agreement is based on nationally determined contributions to achieve its goal, which represent the ratifying parties best efforts toward addressing climate change. Available: http://unfccc.int/paris_agreement/items/9485.php*

[15] *The Governor's Office of Planning and Research. General Plan Guidelines, Chapter 8 Climate Change. Available: https://www.opr.ca.gov/docs/OPR_C8_final.pdf*

much be reached to maintain global temperature rise below 1.5°C. The Paris Agreement (Article 3.1) states that "Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof." As developed nations have a greater capacity to achieve such reductions given access to resources and existing quality of life, there is much incentive for such nations to drive the net-zero emissions reduction model.

As the majority of GHG emissions generated in Long Beach result from transportation (50%) and building energy use (44%), it is important to address the connection between climate forcers such as CO_2 and CH_4 (methane) and criteria air pollutants such as NO_x and Volatile Organic Compounds (VOCs) when considering GHG reduction target-setting and climate science. Interactions between criteria pollutants and climate exist within the atmosphere, which worsen the effects of greenhouse gases and contribute to increased background levels of criteria pollutants. An example from the South Coast Air Quality Management District 2016 Air Quality Management Plan describes the interaction of methane with criteria pollutants. As methane reacts with criteria air pollutants in the atmosphere, it begins to behave like a VOC and increases background tropospheric ozone levels, which in turn makes achievement of air quality standards more difficult. Further, according to the IPCC (AR5 2013) tropospheric ozone is also one of the most reactive and significant of the short-lived climate pollutants. This example illustrates the interconnection between GHG emissions and air quality, and indicates one of the myriad opportunities for co-benefits associated with climate action planning.[16]

E. City's Emissions Profile

As shown in Table 2 below, the City's 2015 total GPC Basic emissions were 3.1 million metric tons of CO_2e with the majority coming from transportation (50%) and building energy use (44%). The remaining 6% comes from solid waste and wastewater.

Table 2
City of Long Beach 2015 Greenhouse Gas Inventory

Sector	MT CO_2e/yr	%
Energy	**1,377,291**	**44%**
Residential	428,245	14%
Commercial	300,818	10%
Manufacturing/Construction	399,089	13%
Energy Industries	219,899	7%
Fugitive Emissions (oil/natural gas)	29,240	1%
Transportation	**1,546,326**	**50%**
On-road Transportation	1,213,601	39%
Railways	11,883	<1%
Waterborne Navigation	301,345	10%
Aviation	4,550	<1%

[16] *South Coast AQMP 2016 Chapter 10, pg 2*

Table 2 City of Long Beach 2015 Greenhouse Gas Inventory		
Sector	**MT CO_2e/yr**	**%**
Off-road Transportation	14,947	<1%
Waste	**176,851**	**6%**
Solid Waste	173,259	6%
Wastewater	3,592	<1%
Total	**3,100,468**	**100%**

The source of emissions should be considered during target setting since the City has more influence over some sources than others. For example, local building codes can be designed to reduce energy emissions from residential and commercial buildings, or incentive programs could be designed to trade in less efficient personal vehicles for high-efficiency or alternative fuel vehicle options. In contrast, a local government might have limited ability to influence technologies or fuels used in the aviation sector. These considerations are especially important for cities considering a net-zero or carbon neutrality GHG target; emissions sources that cannot be reduced would need to be offset in other ways in order to demonstrate target achievement.

F. City's Aspirations and Commitments

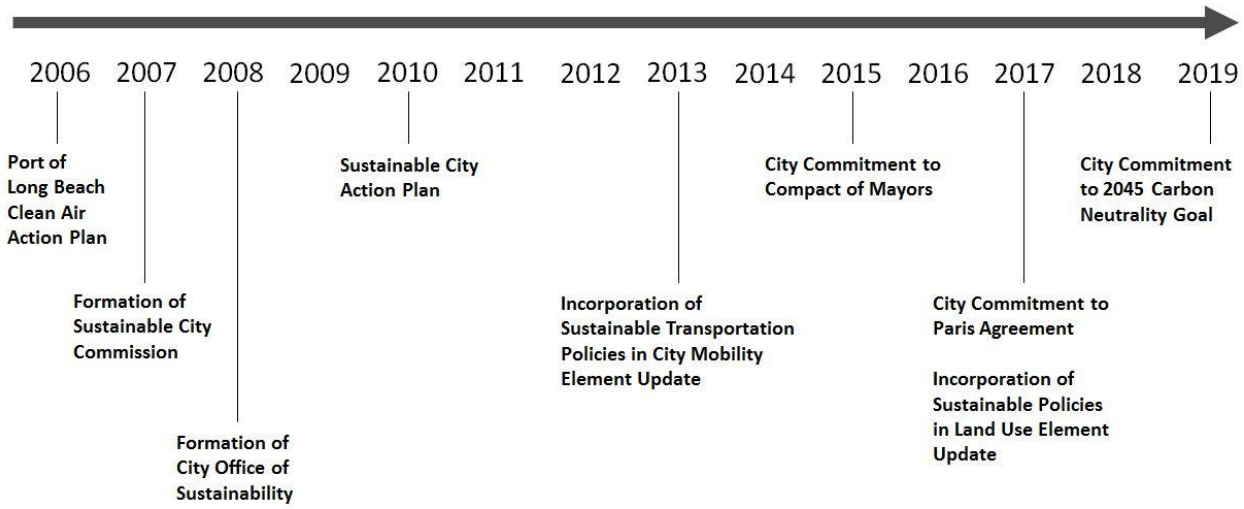
The City's aspirations for climate action and its past and planned commitments for local action should also be considered when defining a local reduction target because they illustrate the local political will and policy framework that can enable continued action in the future. The City of Long Beach has been an early adopter of sustainability planning, including through the following examples of local action:

- 2006: City implements the Port of Long Beach Clean Air Action Plan
- 2007: Formation of the Long Beach Sustainable City Commission
- 2008: Formation of the City Office of Sustainability
- 2010: Development of the Sustainable City Action Plan
- 2013: Incorporation of Sustainable Transportation Policies into City of Long Beach Mobility Element Update
- 2015: Mayor Robert Garcia signs the Compact of Mayors (now the Global Covenant of Mayors) to join the world's largest coalition of city governments to address climate change[17]
- 2017: Mayor Garcia joins 406 mayors across the United States in pledging to continue the goals of the Paris Climate Agreement to make sustainable changes to limit global temperature rise to well below 2°C[18]; City begins development of the CAAP to define a pathway that help the City fulfill its climate commitments; Incorporation of Sustainable Policies in Land Use Element Update
- 2019: Mayor Garcia encourages the City to achieve a 2045 carbon neutrality goal

[17] *City of Long Beach Press Release "What is Long Beach doing about Climate Change" (11/10/2015). (Accessed 07/02/2018). Available: http://www.longbeach.gov/mayor/news/compact/*

[18] *City of Long Beach Press Release "Long Beach Joins Paris Agreement" (06/02/2017). (Accessed 07/02/2018). Available: http://www.longbeach.gov/mayor/news/long-beach-joins-paris-agreement/*

Figure 2 – Timeline of Long Beach Sustainability Activities



The City has also enacted several local initiatives (or planning to support these local actions) that will result in GHG reductions and contribute to the GHG targets defined in the CAAP, including[19]:

- Electric car charger giveaways
- Green Port Policy of zero emission cargo-handling equipment by 2030 and zero emission trucks by 2035 (Clean Air Action Plan)[20]
- Planting 6,000 new trees by 2020
- Addition of 2 megawatts (MW) of solar power at city facilities by 2020
- Expansion of bicycle and pedestrian infrastructure
- Conversion of all street lighting to energy efficient LEDs
- All new City government and major private development buildings designed to LEED standards
- Over 5,000 water and energy saving Lawn-to-Garden transformations already completed
- Transit-oriented development to guarantee sustainable housing projects

G. Target Timeframes

Local GHG targets can be set to align with various objectives, such as State GHG goals, local funding cycles, or long-term planning horizons. From an implementation standpoint, most CAPs are designed with near-term (5-10 years), medium-term (10-20 years), and long-term (20+ year) targets to provide waypoints for progress tracking. With this approach, it is helpful to identify the final target (long-term target) up front, and then set a series of interim targets (near- and medium-term targets) that lead to it. This ensures that near-term targets are aggressive enough to make progress toward the long-term target, and supports strategic thinking on early-action items that will provide long-term benefits.

Alternatively, some cities have found success in focusing intently on near-term targets and actions that can be achieved in one political or funding cycle. For example, the city of Chicago sets 5-year targets in its Sustainability Plan, tracks and analyzes progress during that timeframe, and then sets new 5-year

[19] *City of Long Beach Press Release "Long Beach Joins Paris Agreement" (06/02/2017). (Accessed 07/02/2018). Available: http://www.longbeach.gov/mayor/news/long-beach-joins-paris-agreement/*

[20] *"LA and Long Beach mayors sign pact setting zero-emissions goals for ports" (06/12/2017). Los Angeles Times. (Accessed 07/02/2018). Available: http://www.latimes.com/local/california/la-me-ports-clean-air-20170612-story.html*

targets to incrementally push the city forward. Chicago does have an overarching long-term GHG target (80% below 1990 levels by 2050), but the connection between the 5-year targets and the 2050 target is not explicitly defined, such that achievement of the near-term targets does not necessarily indicate the city is on track to achieve its long-term target. It's important to note however that Chicago's context is different from that established in California through AB 32, SB 32, and Court rulings related to CEQA, and the State's legislative framework for GHG emissions impacts.

California's GHG target years are 2020, 2030, and 2045/2050.[21] Given the proximity to the State's 2020 target year, CAAP target years for 2030 and 2040 are tentatively proposed to allow the City time to establish and achieve the most meaningful GHG reduction targets. An aspirational 2045 goal is also included to provide a long-term vision that underpins the nearer-term targets and aligns with the Mayor's recent guidance to strive for carbon neutrality by 2045. The 2030 and 2045 target years would link the City's targets directly to the State's GHG planning timeframe, while the 2040 target year aligns with the Long Beach General Plan horizon year, which can be beneficial when developing the CAAP's environmental review document for CEQA compliance.

H. Other Local Government Targets

In addition to the guidance provided by State agencies, it can be helpful to consider the GHG targets of other local governments when defining a target because it reinforces the notion that cities are not acting alone, and therefore, are not putting themselves at a regional economic disadvantage through their climate change response. It is also important to consider the context of other cities' targets, including their baseline year, the types of reduction strategies included in their plans, and how they treat statewide actions, when referencing them as the basis for local target setting.

Table 3 shows different GHG targets from other local governments in the California.

Table 3
Other Local Government Greenhouse Gas Targets

City Name (CAP Year)	Target Type	Target Year				
		2020	2025	2030	2035	2050
City of LA (2017)	Mass emissions	Achieve 1990 levels	45% below 1990 levels	-	60% below 1990 levels	80% below 1990 levels[22]
County of LA (2015)	Mass emissions	11% below 2010 levels	-	-	-	-
City of Glendale (2012)	Mass Emissions	8% from 2005 levels	-	-	13% from 2005 levels	-
City of Santa Monica (2015)	Mass Emissions	20% below 1990 levels	-	30% below 1990 levels	-	80% below 1990 levels[23]

[21] *Executive Order S-3-05 from 2005 set a 2050 GHG target of 80% below 1990 levels. More recently, EO B-55-18 has set a target of carbon neutrality by 2045. Neither Executive Order represents a GHG target codified by the legislature, as with the targets established in AB 32 (return to 1990 levels by 2020) and SB 32 (40% below 1990 levels by 2030).*

[22] *The City is currently evaluating GHG reduction pathways to achieve carbon neutrality by 2050*

[23] *The Mayor has stated the City's commitment to achieving carbon neutrality by 2050: https://www.santamonica.gov/blog/santa-monica-commits-to-uphold-paris-climate-agreement-goals*

Table 3 Other Local Government Greenhouse Gas Targets						
City Name (CAP Year)	**Target Type**	**Target Year**				
		2020	**2025**	**2030**	**2035**	**2050**
City of Pasadena (2018)	Mass Emissions	27% below 2009 levels (14% below 1990 levels)	-	49% below 2009 levels (40% below 1990 levels)	59% below 2009 levels (52% below 1990 levels)	83% below 2009 levels (80% below 1990 levels)
City of San Diego (2016)	Mass Emissions	15% below 2010 levels	-	40% below 2010 levels	50% below 2010 levels	-
City of Oakland (2018)	Mass Emissions	-	-	56% below 2005 levels	-	83% below 2005 levels
City of San Francisco (2013)	Mass emissions	-	-	40% below 1990 levels	-	80% below 1990 levels

As shown in the examples above, most of the communities established a mid-term target for 2030 or 2035, and five have set long-term targets aligned with the previous statewide 2050 target (set in Executive Order S-3-05). In addition, the Cities of Los Angeles and Santa Monica are considering carbon neutrality targets, though neither has formally adopted such targets yet. It is worth noting that none of the communities shown above have selected an emissions intensity target. This may be due to the fact that many of the reference CAPs were prepared prior to the 2017 Scoping Plan Update and OPR's General Plan Guidance, which both reference intensity targets as acceptable options for local governments and recommend their use along with mass emissions targets to present a holistic understanding of emissions in the community. This does not suggest that Long Beach could not adopt an intensity target, but it indicates that it might be useful to include mass emissions targets as well to better support comparisons with neighboring communities' commitments.

I. 2030 and 2040 Target Options for Long Beach

Table 4 on the following pages presents several target options for the 2030 and 2040 planning years. At this time, we do not recommend including a 2020 target for analysis since the CAAP is a long-term planning document that will not be finalized until it is nearly 2020. In one instance, a 2020 target is included as a reference because the subsequent targets are based upon it.

Target Options A through E include a set of local targets derived from the State's adopted 2030 GHG target and the direction from EO S-3-05 to achieve statewide reductions of 80% below 1990 levels by 2045. Calculating the 2040 interim targets based on these two State targets is consistent with the local government guidance in the 2017 Scoping Plan. Target Option F represents a linear trajectory from the 2015 base year emissions to the 2045 carbon neutrality goal. Relevant considerations are provided for each option in order to describe whether the potential targets might be appropriate for use at the local level.

We preliminarily recommend the targets shown in Target Options B, D, and E for the City's CAAP because they align with the most current guidance from ARB, OPR, and indirectly with the California Supreme Court's Newhall Ranch decision[24]; are tailored to match the emissions sectors included locally in the City's inventory; and provide an easy calculation metric for tracking future target progress. Target Option B would result in absolute emissions reductions because it is framed as a mass emissions target, corresponds with the Paris Agreement's goal based on its relationship to California's 2050 GHG target, and would support CEQA streamlining benefits for new development. Target Options D and E would result in reduced emissions intensity (e.g., tons per capita), and are assumed to result in mass emissions reductions based on the population and employment forecasts envisioned in the City's General Plan Update.[25] These targets are also based on California's 2050 GHG target, and therefore correspond with the Paris Agreement's 2°C goal and would support CEQA streamlining benefits; however, an emissions target scenario that could allow absolute emissions growth in the interim may present challenges from a public perception standpoint.

Target Option F is also a good candidate if the City wishes to demonstrate a more aggressive 2045 carbon neutrality pathway than the previous examples. The values shown for this option represent a linear trajectory in emissions intensity from 2015 levels to carbon neutrality by 2045.

Table 4
2030 and 2040 Greenhouse Gas Target Options

Option	Target	Considerations	Recommendation
Target Option A – 2008 Scoping Plan Mass Emissions Target			
2030	40% below 2015 levels (1,860,281 MT CO_2e/yr)	Not appropriate use of State's 2030 target because it should be measured from 1990 inventory levels, and City's baseline inventory is 2015	**No**
2040	60% below 2015 levels (1,240,187 MT CO_2e/yr)	Not appropriate interpolation of State's 2030 and 2050 targets because they should be measured from 1990 inventory levels, and City's baseline inventory is 2015	**No**
Target Option B – 2015 Statewide Inventory Mass Emissions Target			
2020	2.4% below 2015 levels (3,025,654 MT CO_2e/yr)	Roughly approximates return to 1990 levels based on statewide inventories; implies that all state inventory sectors are included in local inventory, which is not true	**Maybe**

[24] *The Newhall Ranch case was not about a communitywide climate action plan, but rather a new development project and that project's GHG threshold. This is an important distinction because communitywide CAPs consider emissions from existing and future development, whereas a project's CEQA analysis only considers emissions from new development associated with the project. However, the guidance provided in the Newhall Ranch case decision is still interpreted as a good analog for CAP target setting because it affirms the connection between State's GHG legislative framework, local agency determination, and CEQA determination.*

[25] *Target Options D and E could result in mass emissions increases if population and/or employment growth is substantially higher than assumed in the General Plan.*

Table 4 2030 and 2040 Greenhouse Gas Target Options			
Option	**Target**	**Considerations**	**Recommendation**
2030	40% below 2020 target level (1,815,392 MT CO_2e/yr)	Mirrors State targets, assuming 2020 target represents a return to 1990 levels	**Maybe**
2040	60% below 2020 target level (1,210,262 MT CO_2e/yr)	These targets would align with the Paris Agreement 2°C goal through consistency with California's 2050 GHG target	**Maybe**
Target Option C – 2017 Scoping Plan Intensity Targets			
2030	6.0 MT CO_2e/capita (2,882,544 MT CO_2e/yr)	Not an appropriate use of ARB guidance in Scoping Plan Update because targets assume all statewide inventory sectors are included in local inventory; City's inventory only includes a sub-set of statewide sectors	**No**
2040	4.0 MT CO_2e/capita (1,937,940 MT CO_2e/yr)		**No**
Target Option D – Local Emissions Source-Based Intensity Targets			
2030	4.46 MT CO_2e/capita (2,142,691 MT CO_2e/yr); 3.06 MT CO_2e/SP (1,997,327 MT CO_2e/yr)	Calculates per capita and per service population emissions targets based on sub-set of statewide emissions sectors that will are included in City's inventory	**Maybe**
2040	2.79 MT CO_2e/capita (1,351,713 MT CO_2e/yr); 1.92 MT CO_2e/SP (1,279,008 MT CO_2e/yr)	These targets would align with the Paris Agreement 2°C goal through consistency with California's 2050 GHG target	**Maybe**

Table 4 2030 and 2040 Greenhouse Gas Target Options			
Option	**Target**	**Considerations**	**Recommendation**
Target Option E – Local Emissions (without Passenger Vehicles) Intensity Targets			
2030	2.98 MT CO_2e/capita (1,431,664 MT CO_2e/yr); 2.04 MT CO_2e/SP (1,331,552 MT CO_2e/yr)	Calculates per capita and per service population emissions targets based on sub-set of statewide emissions sectors that will be included in City's inventory, excluding passenger cars and light duty trucks, which will be addressed at the regional level through SB 375 legislation[26] These targets would align with the Paris Agreement 2°C goal through consistency with California's 2050 GHG target *Note: This option proposes removing only the passenger vehicle emissions from consideration and not mobile emissions from other types of vehicles. This would remove only GHG emissions that are specifically addressed through the SB 375 process.*	**Maybe**
2040	1.86 MT CO_2e/capita (901,142 MT CO_2e/yr); 1.28 MT CO_2e/SP (852,672 MT CO_2e/yr)		**Maybe**
Target Option F – Net Carbon Neutrality Target (straight line trajectory)			
2030	3.31 MT CO_2e/capita (1,588,297 MT CO_2e/yr); 2.48 MT CO_2e/SP (1,620,776 MT CO_2e/yr)	Aims for carbon neutrality by 2045, with interim targets based on linear trajectory from City's emissions intensity levels in 2015 to net zero emissions in 2045 Achieving carbon neutrality would require GHG reductions in emissions sub-sectors over which the City does not exercise direct control (e.g., waterborne navigation, rail transport, oil/gas refining) and would be contingent upon partnerships with external agencies/organizations or investment in carbon offset programs These targets would align with the Paris Agreement 1.5°C goal through consistency with California's 2045 carbon neutrality target	**Maybe**
2040	1.10 MT CO_2e/capita (533,908 MT CO_2e/yr); 0.83 MT CO_2e/SP (551,374 MT CO_2e/yr)		**Maybe**

[26] *The Sustainable Communities and Climate Protection Act of 2008 (SB 375) directs the California Air Resources Board to set regional targets for GHG reductions from passenger vehicles. The targets are designed to align with the State's GHG reduction targets, and are implemented through a Regional Transportation Plan/Sustainable Communities Strategy prepared by California's metropolitan planning organizations, including the Southern California Association of Governments of which Long Beach is a member.*

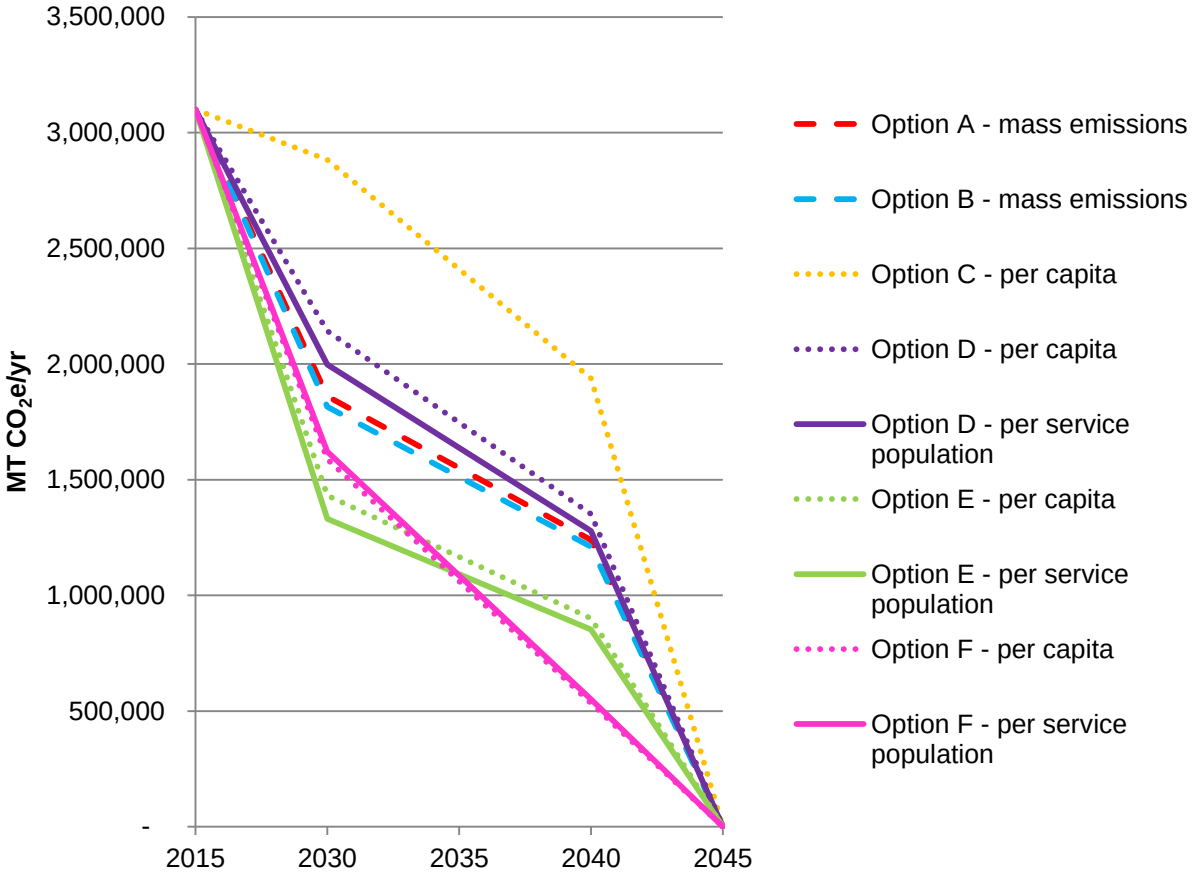
J. 2045 GHG Aspirational Goal

As previously described, the Mayor recommended that the City aim to achieve a carbon neutrality goal by 2045, which would align with the State's carbon neutrality target expressed in EO B-55-18. The previous 2050 GHG goal options considered in Target Setting Memo #1 have been replaced with 2045 carbon neutrality goals for all target options in this Memo #2.

K. Target Option Summary

Figure 3 illustrates each of the target options when converted into mass emissions levels based on local resident and employment forecasts from the City's General Plan Update Land Use Element.

Figure 3 – Target Options in Mass Emissions



Figures 4 and 5 illustrate the target options as emissions intensity levels with per service population targets (Figure 4) and per capita targets (Figure 5). Note there is no per service population version of Target Option C.

Figure 4 – Target Options in Emissions per Service Population

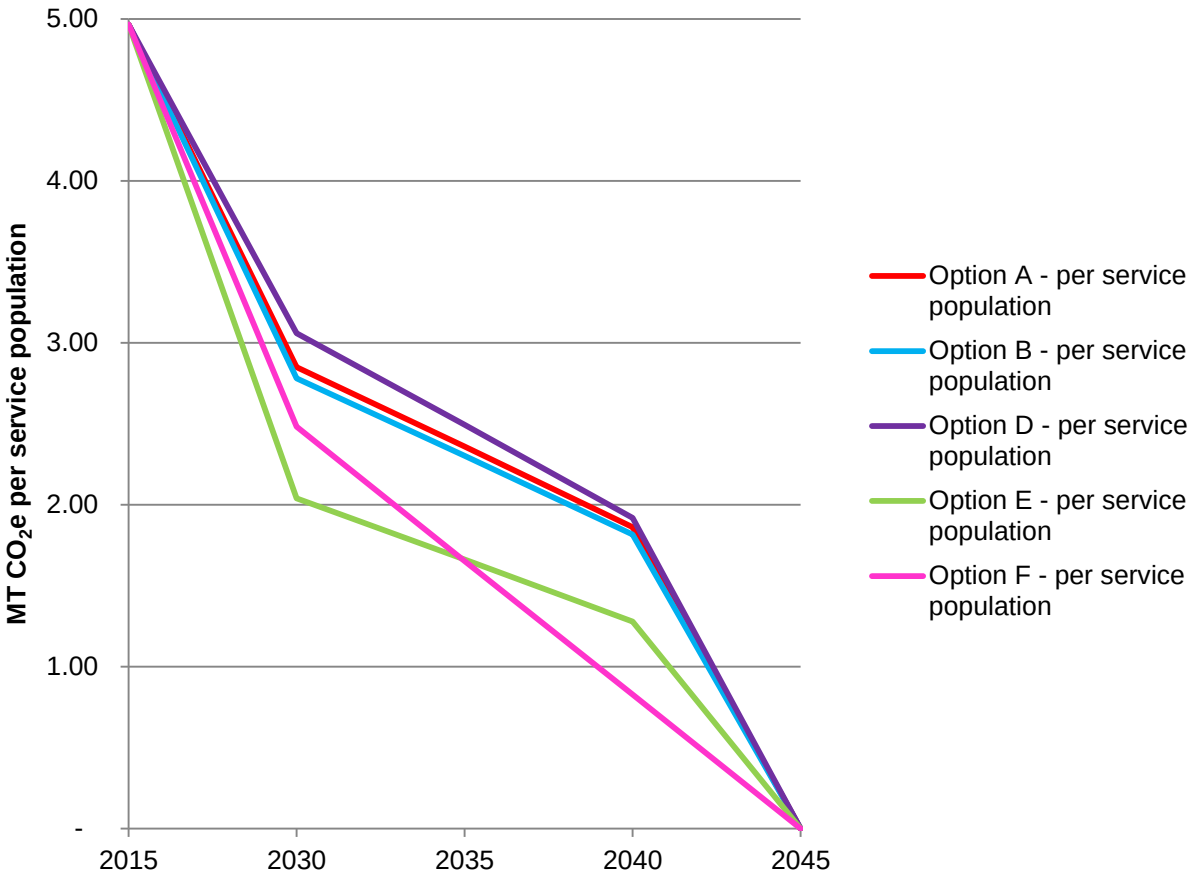
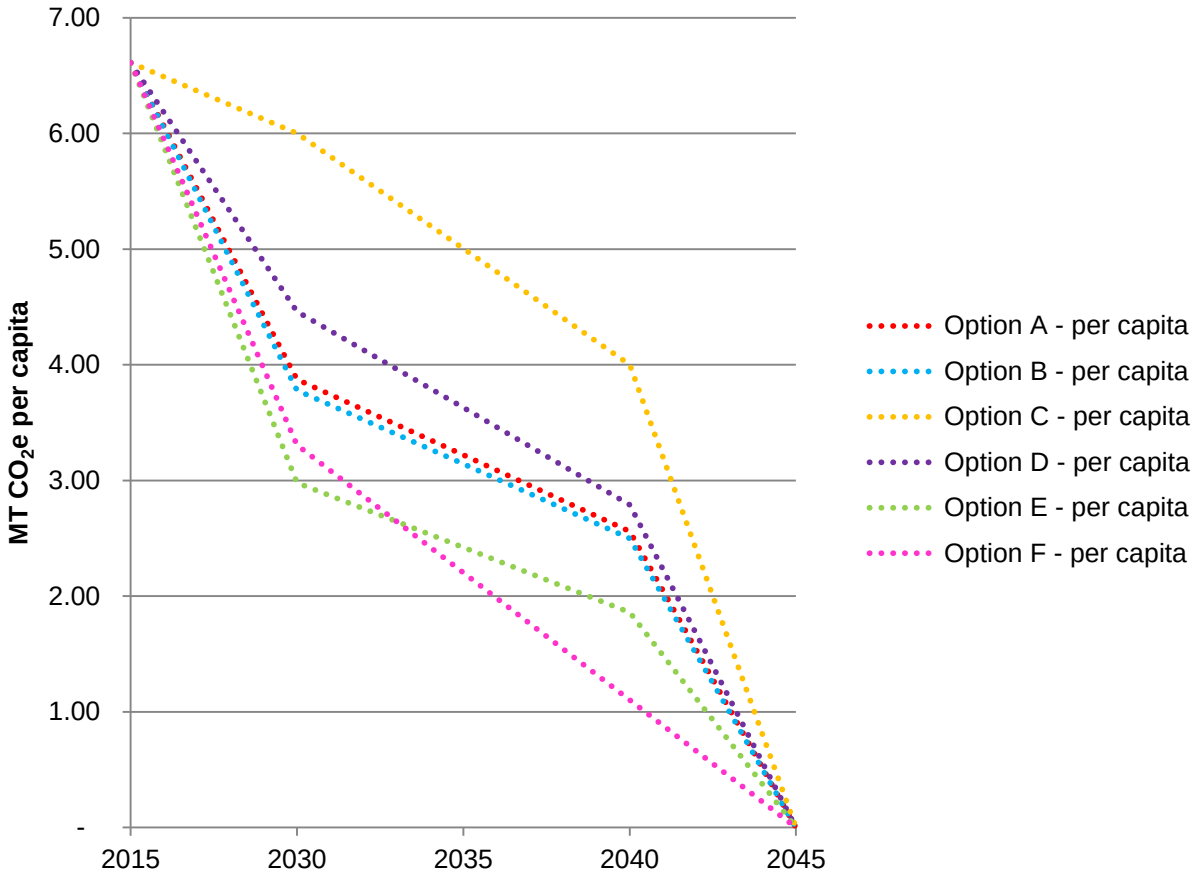


Figure 5 – Target Options in Emissions per Capita



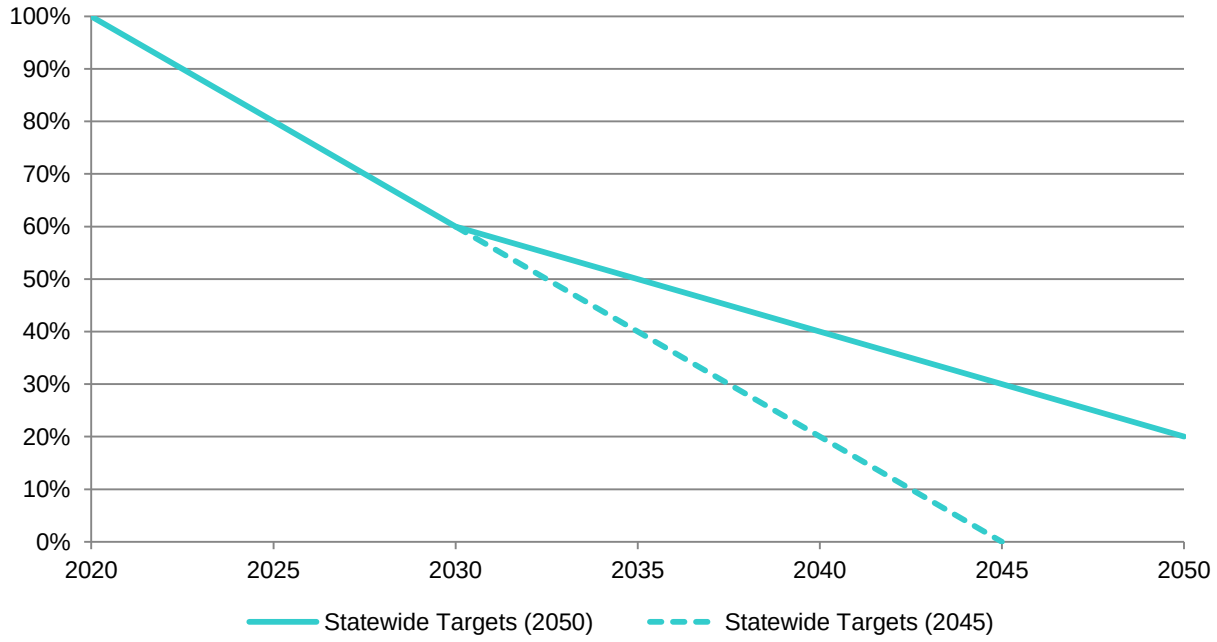
Section 2 – Target Calculation Methodology

A. Statewide Targets

In 2006, California took steps to develop a long-term response to the challenges of climate change through adoption of Assembly Bill 32 (AB 32). As the first-of-its-kind legislation in the country, AB 32 established a statewide GHG emissions reduction target to return to 1990 emissions levels by the year 2020. In addition to the near-term 2020 target codified in AB 32, Executive Order (EO) S-3-05 was signed by then-Governor Schwarzenegger in 2005 to establish a long-term emissions target of 80% below 1990 levels by 2050. Then, SB 32 was signed in 2016 to establish an interim target between the State's 2020 and 2050 targets, calling for reductions of 40% below 1990 levels by 2030. In 2018, then-Governor Brown signed EO B-55-18 to establish a 2045 carbon neutrality target for the state. Figure 6 illustrates the trajectory of the State's targets from 2020 through 2050 as a solid line, and from 2020 through 2045 as a dashed line to illustrate both of the long-term Executive Order GHG targets.

For purposes of the target setting calculation methodology described in this section, the State's 2050 GHG targets expressed in EO S-3-05 are referenced and used to calculate the 2040 interim target options. This is to align the target options with the local government guidance provided in the 2017 Scoping Plan, which also reference the State's 2050 climate goals.

Figure 6 – Statewide Emissions Target Trajectory



Statewide Emissions Inventory

AB 32 (2006) required that the Air Resources Board (ARB) determine the statewide greenhouse gas emissions level in 1990, from which progress toward achievement of the emissions targets shown in Figure 6 can be measured. AB 32 also required ARB to approve a statewide greenhouse gas emissions limit, equal to the 1990 level, as a limit to be achieved by 2020. In 2014, ARB adopted a revised 2020 emissions limit of 431 MMT CO_2e. This new emissions limit replaced the original 1990 limit approved in 2007. The currently approved 1990 limit (i.e., 431 MMT CO_2e) includes emissions from all sectors within the state. Table 5 shows the State's 2020, 2030 and 2050 emissions targets based on the approved 1990 limit. A 2040 target year value was interpolated between the 2030 and 2050 targets to correspond with the Long Beach General Plan horizon year.

Table 5
Statewide Emissions Inventory and Reduction Targets

	1990	2020	2030	2040	2050
Statewide Emissions Targets (MMT CO_2e)	431.0 [1]	431.0 [1]	258.6 [2]	n/a	86.2 [4]
Interpolated Mid-term Reduction Target	n/a	n/a	n/a	172.4 [3]	n/a
Amount below 1990 Levels	0%	0%	40%	60%	80%

Source: AECOM 2019

Note: MMT CO_2e = million metric tons of carbon dioxide equivalent

[1] California 1990 Greenhouse Gas Emissions Level and 2020 Limit, ARB: <http://www.arb.ca.gov/cc/inventory/1990level/1990level.htm>

[2] 40% below 1990 levels per SB 32

[3] Interpolated between 2030 and 2050 targets

[4] 80% below 1990 levels per EO-S-3-05

Local Application of Statewide Emissions Targets

Local governments in California often select the same emissions targets as the State when preparing GHG analyses. However, community GHG inventories often do not include all of the same emissions sectors as the statewide inventory. For example, community inventories may not include agricultural or forestry emissions. Therefore, a scaled version of the full statewide emissions inventory was developed as part of the City's CAAP analysis, which is based on the emissions inventory sectors occurring in Long Beach. The revised inventory is more appropriate for use in community CAAP target-setting because it draws a clearer correlation between the City's GHG target and its relationship to the State's own targets.

Table 6 on the following page presents a revised version of the 1990 statewide emissions shown in Table 5 and includes only the sectors and sub sectors included in the Long Beach communitywide inventory.

Table 6 Adjusted Statewide Emissions Inventory – Local Emissions Sources			
Main Sector / Sub Sector Level 1	**Total Emissions (MMT CO_2e/yr)** [1]	**Adjusted Emissions – Local Sources (MMT CO_2e/yr)**	**Notes/Adjustments**
Agriculture & Forestry	18.9	0.0	Excluded
Commercial	14.4	13.9	Excludes National Security emissions from Sub Sector Level 1
Electricity Generation (Imports)	61.5	61.5	Includes all emissions
Electricity Generation (In State)	49.0	34.4	Excludes CHP: Industrial from Sub Sector Level 1
Industrial	105.3	40.3	Industrial emissions included, except as described in sub sectors below:
CHP: Industrial	*9.7*	*0.0*	*Excluded*
Flaring	*0.2*	*0.2*	
Landfills	*7.4*	*7.4*	
Manufacturing	*32.1*	*12.4*	*Includes only natural gas emissions from Activity Level 2*
Mining	*0.03*	*0.0*	*Excluded*
Not Specified	*2.7*	*0.0*	*Excluded*
Oil & Gas Extraction	*14.8*	*14.8*	
Petroleum Marketing	*0.02*	*0.0*	*Excluded*
Petroleum Refining	*32.8*	*0.0*	*Excluded*
Pipelines	*1.9*	*1.9*	
Waste Water Treatment	*3.6*	*3.6*	
Not Specified	1.3	1.3	Includes all emissions
Residential	29.7	29.7	Includes all emissions
Transportation	150.6	145.5	Excludes aviation emissions
Total	**431.0**	**326.6**	

Notes: Sectors/sub-sectors may not sum exactly due to rounding

[1] California 1990 Greenhouse Gas Emissions Level and 2020 Limit by Sector, ARB: <http://www.arb.ca.gov/cc/inventory/1990level/1990level.htm>

Table 7 on the following page presents the adjusted statewide emissions based on the local emissions sources occurring in the Long Beach community inventory, with the corresponding statewide emissions targets for the 2020, 2030, 2040 and 2050 target years.

Table 7
Adjusted Statewide Emissions Inventory, Forecasts, and Reduction Targets – Local Emissions Sources

	1990	2020	2030	2040	2050
Statewide Emissions Targets (MMT CO_2e)	326.6 [1]	326.6 [1]	195.94 [2]	130.63 [3]	65.31 [4]
Amount below 1990 Levels	0%	0%	40%	60%	80%

Source: AECOM 2019

Note: MMT CO_2e = million metric tons of carbon dioxide equivalent

[1] See Table 6 for statewide inventory source and local emissions source adjustments.

[2] 40% below 1990 levels (i.e., 2020 target levels) per SB 32

[3] Interpolated between 2030 and 2050 targets

[4] 80% below 1990 levels (i.e., 2020 target levels) per EO-S-3-05

B. Emissions Intensity Targets

Statewide emissions reduction targets can be normalized and expressed on a per-capita or per-service population basis to represent the intensity of emissions needed statewide to achieve the AB 32 and SB 32 targets. For example, to create an intensity target that represents AB 32, one would divide the statewide emissions target for 2020 (shown in Table 6) by the statewide population and employment forecasts for 2020. This would yield an emission "budget" for each California resident and employee and demonstrate that emissions levels in a community are the same as what would be required statewide to achieve the AB 32 GHG reduction target. As noted previously, ARB's Proposed Scoping Plan recommends an intensity target approach for local governments for 2030 and 2050 target years.

Table 8 presents statewide population and employment forecasts through 2050. The year 2024 is presented in this table because employment forecasts are available from the State Employment Development Department for this year.

Table 8
Statewide Demographic Projections

	2015	2020	2024	2030	2040	2050
Population	39,059,415 [1]	40,639,392 [1]	41,994,283 [1]	43,939,250 [1]	46,804,202 [1]	49,077,801 [1]
Employment	17,393,550 [2]	18,686,300 [2]	19,720,500 [3]	20,651,448 [4]	21,997,975 [4]	23,066,566 [4]
Service Population (population + employment)	56,452,965	59,325,692	61,714,783	64,590,698	68,802,177	72,144,367

Source: AECOM 2019

[1] DOF Table P-1 Total Estimated and Projected Population for California and Counties: July 1, 2010 to July 1, 2060 in 1-year increments. January 2018. Available online at: <http://www.dof.ca.gov/Forecasting/Demographics/projections/>

[2] Interpolated from Employee Development Department (EDD) Employment Projections for 2014 (17,135,000) and 2024 (19,720,500). See Note 3 for employment estimation source.

[3] Employee Development Department (EDD) Employment Projections. Available online at: <http://www.labormarketinfo.edd.ca.gov/data/employment-projections.html>

[4] EDD does not provide employment estimates to 2050, so the ratio of employment to population estimated in 2024 (i.e., 47.0%) was applied to the DOF population estimates for 2030, 2040, and 2050.

Intensity Targets – Total Statewide Inventory

Using the demographic forecasts from Table 8 and the statewide GHG targets from Table 5, statewide emissions intensity targets can be developed for the 2020, 2030, 2040, and 2050 target years, which are presented in Table 9. The 2015 baseline emissions intensity levels are also shown.

Table 9
Statewide Emissions Intensity Baseline and Targets

	2015	2020	2030	2040	2050
Emissions Targets (MT CO_2e/yr) [1]	441,400,000 [3]	431,000,000	258,600,000	172,400,000	86,200,000
Population [2]	39,059,415	40,639,392	43,939,250	46,804,202	49,077,801
Service Population (SP) [2] (population + employment)	56,452,965	59,325,692	64,590,698	68,802,177	72,144,367
Per Capita Emissions Intensity Targets (MT CO_2e/capita/yr)	**11.30**	**10.61**	**5.89**	**3.68**	**1.76**
Per Service Population Emissions Intensity Targets (MT CO_2e/SP/yr)	**7.82**	**7.26**	**4.00**	**2.51**	**1.19**

Source: AECOM 2019

Note: MT CO_2e = metric tons of carbon dioxide equivalent; Service Population (SP) = population + employment

[1] See Table 5 for sources.

[2] See Table 8 for sources.

[3] California Air Resources Board, statewide 2015 inventory. Available online at: <https://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_sector_sum_2000-16.pdf>

Intensity Targets – Local Emissions Sources

Local emissions intensity targets can be based upon the adjusted statewide emissions inventory to reflect local emissions sources. The calculation of local intensity targets needs to incorporate the employment projections associated with the emissions activities for which emissions are being considered. Table 10 presents the revised statewide demographic projections reflecting only those employment sectors included in the local emissions sources from Table 6.

Table 10
Statewide Demographic Projections – Local Emissions Sources Employment

	2020	2024	2030	2040	2050
Population	40,639,392 [1]	41,994,283 [1]	43,939,250 [1]	46,804,202 [1]	49,077,801 [1]
Employment	18,185,480 [2]	19,194,800 [3]	20,083,808 [4]	21,393,324 [4]	22,432,543 [4]
Service Population (population + employment)	58,824,872	61,189,083	64,023,058	68,197,526	71,510,344

Source: AECOM 2019

[1] DOF Table P-1 Total Estimated and Projected Population for California and Counties: July 1, 2010 to July 1, 2060 in 1-year increments. January 2018. Available online at: <http://www.dof.ca.gov/Forecasting/Demographics/projections/>

[2] Interpolated from revised (i.e., local emissions sources) Employee Development Department (EDD) Employment Projections for 2014 (16,671,500) and 2024 (19,194,800). See Note 3 for employment estimation source.

[3] Employee Development Department (EDD) Employment Projections. Available online at: <http://www.labormarketinfo.edd.ca.gov/data/employment-projections.html>. Sorted to remove jobs from: 11-9013 Farmers, Ranchers, and Other Agricultural Managers; 19-1032 Foresters; 19-4093 Forest and Conservation Technicians; 45-000 Farming, Fishing, and Forestry Occupations; 47-5021 Earth Drillers, Except Oil and Gas; 49-3041 Farm Equipment Mechanics and Service Technicians.

[4] EDD provides 2- and 10-year employment estimates that currently extend to 2024, so the ratio of employment to population estimated in 2024 (i.e., 45.7%) was applied to the DOF population estimates for 2030, 2040, and 2050 to estimate employment in those years.

Based on the adjusted statewide demographic projections shown above, Table 11 shows the intensity targets most applicable for use in Long Beach's CAAP given the emissions sources included in its communitywide inventory.

Table 11
Local Emissions Intensity Targets

	2020	2030	2040	2050
Emissions Targets (MT CO_2e/yr) [1]	326,570,000	195,940,000	130,630,000	65,310,000
Percent Mass Emissions Reduction	n/a	40% below 1990	60% below 1990	80% below 1990
Population [2]	40,639,392	43,939,250	46,804,202	49,077,801
Service Population (SP) [2]	58,824,872	64,023,058	68,197,526	71,510,344
Per Capita Emissions Intensity Targets (MT CO_2e/capita/yr)	**8.04**	**4.46**	**2.79**	**1.33**
Per Service Population Emissions Intensity Targets (MT CO_2e/SP/yr)	**5.55**	**3.06**	**1.92**	**0.91**

Source: AECOM 2019

Note: MT CO_2e = metric tons of carbon dioxide equivalent; Service Population (SP) = population + employment

[1] See Table 7 for sources

[2] See Table 10 for sources.