



Greenhouse Gas Assessment for the Mt. San Antonio College Facilities Master Plan Update and Physical Education Projects

Report #16-008GHG
April 15, 2016

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1.0 EXISTING ENVIRONMENT

1.1 Project Description

Mt. San Antonio College is located in the City of Walnut on over 420 acres. It has an estimated 2014-2015 fall enrollment of 35,986 students (headcount). The college has proposed a 2015 Facilities Master Plan Update (FMPU) and the corresponding Land Use Plan is shown as in Exhibit 1. The major change from the 2012 FMP is the re-design of the athletic facilities south of Temple Avenue and east of Bonita Avenue and is shown in Exhibit 2. The existing stadium will be demolished and a new stadium built onsite. Other changes for the 2015 FMPU include the relocation of the Public Transportation Center to Lot D3, and expanded Wildlife Sanctuary and Open Space area, and a pedestrian bridge across Temple Avenue connecting the Physical Education Complex to Lot F. The net increase in square footage at 2015 FMPU buildout is approximately 500,000 gross square feet. Special annual events will continue to be held on campus that include the Mt. SAC/Brooks Relays and the Mt. SAC Cross-Country Invitational (XC Invite). The District is also filing an application to host the 8-day 2020 Olympic Track & Field Trials in late July or August 2020.

This report analyzes the potential climate change impacts associated with this project. Both the greenhouse gas emissions generated by construction and operation of the project are assessed.

1.2 Greenhouse Gases and Climate Change

1.2.1 Impact of Climate Change

The Earth's climate has always been in the process of changing, due to many different natural factors. These factors have included changes in the Earth's orbit, volcanic eruptions, and varying amounts of energy released from the sun. Differences such as these have caused fluctuations in the temperature of the climate, ranging from ice ages to long periods of warmth. However, since the late 18th century, humans have had an increasing impact of the rate of climate change, beginning with the Industrial Revolution.

Exhibit 1 - Land Use Plan for the 2015 FMPU

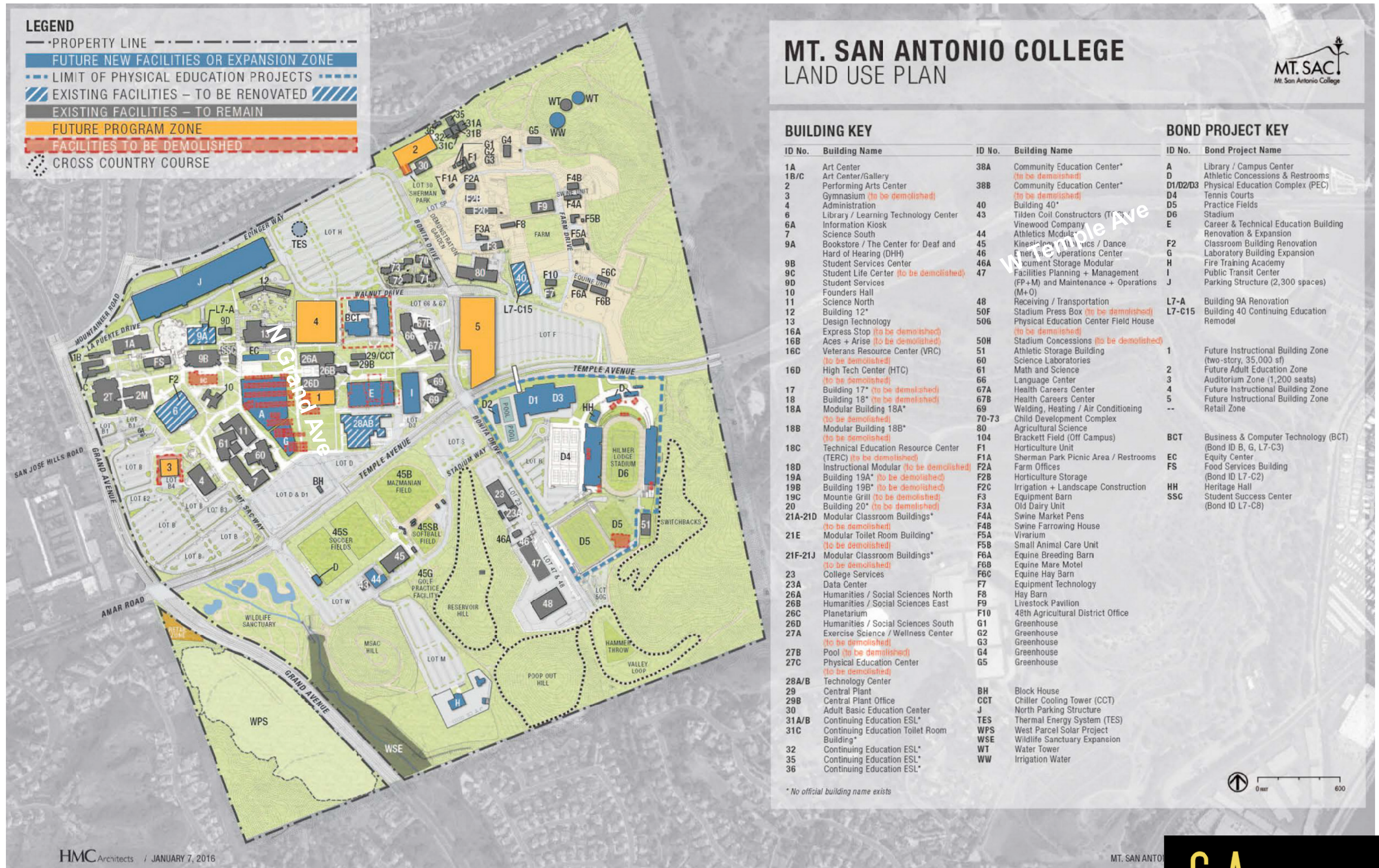
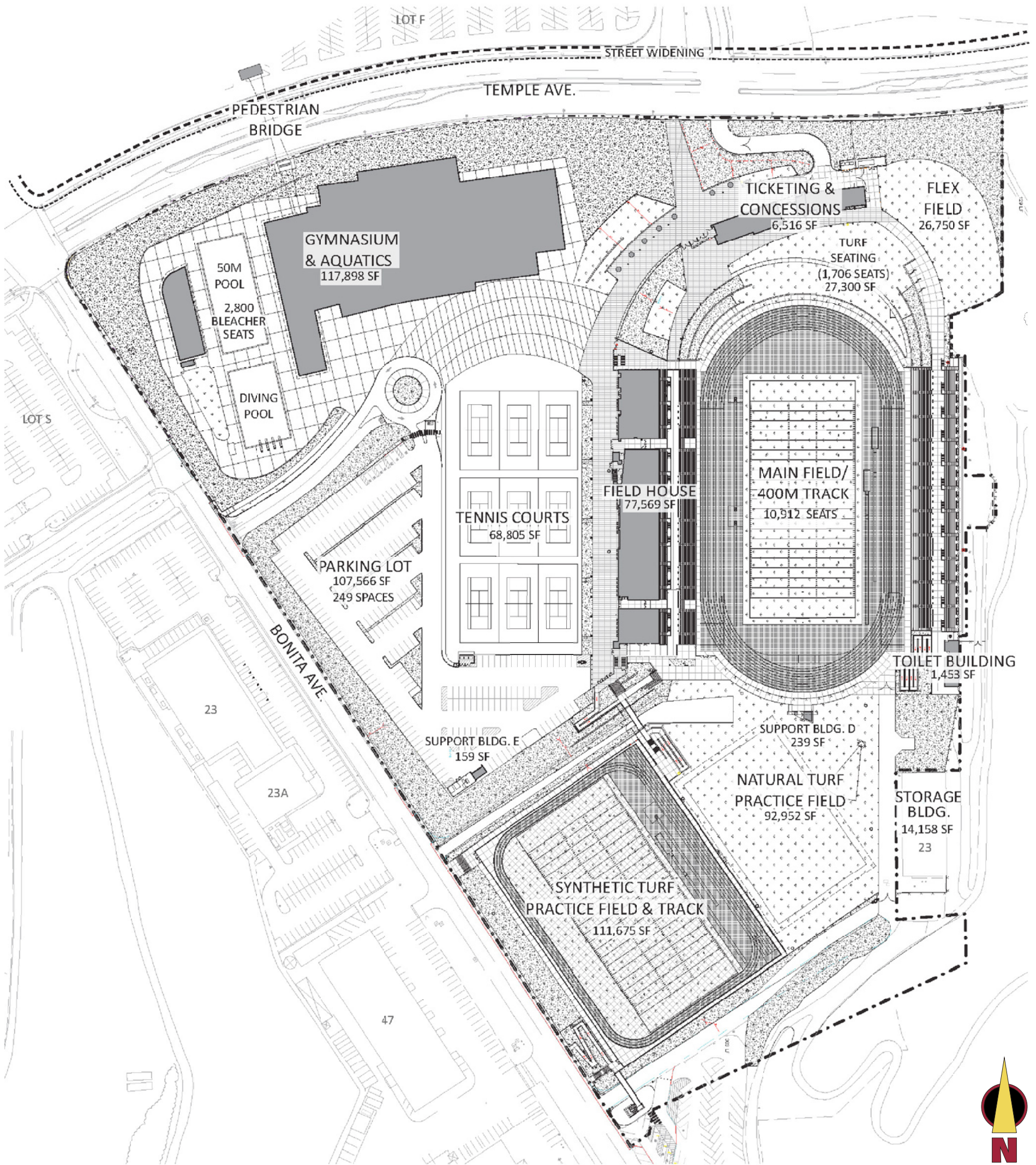


Exhibit 2 - Physical Education Projects



Many human activities have augmented the amount of "greenhouse gases" ("GHGs") being released into our atmosphere, specifically the burning of fossil fuels, such as coal and oil, and deforestation. The gases increase the efficiency of the greenhouse effect, which is the process of trapping and recycling energy (in the form of heat) that the Earth emits naturally, resulting in higher temperatures worldwide. The Intergovernmental Panel on Climate Change stated in February 2007 that warming is unequivocal, expressing very high confidence (expressed as a nine out of ten chance of being correct) that the net effect of human activities since 1750 has been one of warming. According to the National Oceanic and Atmospheric Administration (NOAA) and National Aeronautics and Space Administration (NASA) data, the average surface temperature of the Earth has increased by about 1.2 to 1.4°F in the last 100 years. The eight warmest years on record (since 1850) have all occurred since 1998, with the warmest year being 2005. [EPA, 2011, epa.gov/climatechange/basicinfo.html].

This process of heating is often referred to as 'global warming,' although the National Academy of Sciences prefers the terms 'climate change' as an umbrella phrase which includes global warming as well as other environmental changes, in addition to the increasing temperatures. Some of these effects include changes to rainfall, wind, and current weather patterns, as well as snow and ice cover, and sea level.

If greenhouse gases continue to increase, climate models predict that the average temperature at the Earth's surface could increase from 3.2 to 7.2°F above 1990 levels by the end of this century. The degree of change is influenced by the assumed amount of GHG emissions, and how quickly atmospheric GHG levels are stabilized. At this point, however, the climate change models are not capable of predicting local impacts, but rather, can only predict global trends. [EPA, 2011, epa.gov/climatechange/basicinfo.html].

Global GHG emissions are measured in million metric tons of carbon dioxide equivalent ("MMT CO₂EQ") units. A metric ton is approximately 2,205 lbs. Some GHGs emitted into the atmosphere are naturally occurring, while others are caused solely by human activities. The principal GHGs that enter the atmosphere because of human activities are:

- **Carbon dioxide (CO₂)** enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), agriculture, irrigation, and deforestation, as well as the manufacturing of cement.
- **Methane (CH₄)** is emitted through the production and transportation of coal, natural gas, and oil, as well as from livestock. Other agricultural activities influence methane emissions as well as the decay of waste in landfills.

- **Nitrous oxide (N₂O)** is released most often during the burning of fuel at high temperatures. This greenhouse gas is caused mostly by motor vehicles, which also include non-road vehicles, such as those used for agriculture.
- **Fluorinated Gases** are emitted primarily from industrial sources, which often include hydrofluorocarbons (HFC), perfluorocarbons (PFC), and sulfur hexafluoride (SF₆). Though they are often released in smaller quantities, they are referred to as High Global Warming Potential Gases because of their ability to cause global warming. Fluorinated gases are often used as substitutes for ozone depleting substances.

These gases have different potentials for trapping heat in the atmosphere, called global warming potential ("GWP"). For example, one pound of methane has 21 times more heat capturing potential than one pound of carbon dioxide. When dealing with an array of emissions, the gases are converted to carbon dioxide equivalents for comparison purposes. The GWPs for common greenhouse gases are shown in Table 1.

Table 1 Global Warming Potentials (GWP)

Gas	Global Warming Potential
Carbon Dioxide	1
Methane	28
Nitrous Oxide	265
Nitrogen Trifluoride	16,100
Hydrofluorocarbons	100-12,000
Perfluorocarbons	7,000-11,000
Sulfur Hexafluoride (SF ₆)	23,500

Source: CARB, "First Update to the Climate Change Scoping Plan," May 2014.

1.2.2 Impact of Climate Change on California and Human Health

The long-term environmental impacts of global warming may include sea level rise that could cause devastating erosion and flooding of coastal cities and villages, as well as more intense hurricanes and typhoons worldwide. In the United States, Chicago is projected to experience 25 percent more frequent heat waves and Los Angeles a four-to-eight-fold increase in heat wave days by the end of the century (IPCC, 2007: Climate Change 2007: Impacts, Adaptation and Vulnerability, Contribution of Working Group II to the Third Assessment Report of the Intergovernmental Panel on Climate Change, Cambridge University Press, Cambridge).

Locally, global warming could cause changing weather patterns with increased storm and drought severity in California. Changes to local and regional ecosystems include the potential loss of species and a significant reduction in winter snow pack (e.g., estimates

include a 30 to 90% reduction in snow pack in the Sierra Nevada mountain range). Current data suggest that in the next 25 years, in every season of the year, California could experience unprecedented heat, longer and more extreme heat waves, greater intensity and frequency of heat waves, and longer dry periods. The California Climate Change Center (2006) predicted that California could witness the following events:

- Temperature rises between 3 and 10.5°F
- 6 to 20 inches or more increase in sea level
- 2 to 4 times as many heat-wave days in major urban centers
- 2 to 6 times as many heat-related deaths in major urban centers
- 1 to 1.5 times more critically dry years
- 10 to 55% increase in the risk of wildfires

An increase in the frequency of extreme events may result in more event-related deaths, injuries, infectious diseases, and stress-related disorders. Particular segments of the population such as those with heart problems, asthma, the elderly, the very young and the homeless can be especially vulnerable to extreme heat. Also, climate change may increase the risk of some infectious diseases; particularly those diseases that appear in warm areas and are spread by mosquitoes and other insects. These "vector-borne" diseases include malaria, dengue fever, yellow fever, and encephalitis. Also, algal blooms could occur more frequently as temperatures warm – particularly in areas with polluted waters – in which case diseases (such as cholera) that tend to accompany algal blooms could become more frequent.

1.2.3 Adaptation Impact

Adaptation refers to potential climate change impacts on the project. Global warming is already having a profound impact on water resources. Climate change already altered the weather patterns and water supply in California leading to increased water shortages (i.e., a dwindling snowpack, bigger flood flows, rising sea levels, longer and harsher droughts). Water supplies are also at risk from rising sea levels. Risks may include degradation of California's estuaries, wetlands, and groundwater aquifers that would threaten the quality and reliability of the major California fresh water supply (Climate Change Adaptation Strategies for California's Water, State of California Department of Water Resources, October 2008).

Higher temperatures will also likely increase electricity demand due to higher air conditioning use. Even if the population remained unchanged, toward the end of the century annual electricity demand could increase by as much as 20 percent if temperatures rise into the higher warming range. (Implementing aggressive efficiency measures could lower this estimate).

Higher temperatures may require that the project consume more electricity for cooling. Additionally, more water may be needed for the landscaping. However, sea level rise will not

impact the project because it is so far and high relative to the ocean.

Adaptation includes the responses to the changing climate and policies to minimize the predicted impacts (e.g., building better coastal defenses to sea level rise). Adaptation is not included in this report. It should be note that adaptation is not mitigation. Mitigation includes intervention or policies to reduce GHG emissions or to enhance the sinks of GHGs.

1.2.4 Emission Inventories

To put perspective on the emissions generated by a project and to better understand the sources of GHGs, it is important to look at emission inventories. The United Nations has taken the lead in quantifying GHG emissions and compiling the literature on climate change. The United Nations estimate for CO₂ emissions for the world and for the top ten CO₂ producing countries is presented in Table 2.

**Table 2 Top Ten CO₂ Producing Nations in 2007
(Million Metric Tons (MMT) CO₂)**

Country	Emissions	Percent of Global
1. China	6,538	22%
2. United States	6,094	20%
3. India	1,610	5%
4. Russian Federation	1,580	5%
5. Japan	1,304	4%
6. Germany	841	3%
7. Canada	590	2%
8. United Kingdom	546	2%
9. Korea, Republic of	503	2%
10. Iran (Islamic Republic of)	496	2%
<i>Remaining Countries</i>	<i>10,010</i>	<i>33%</i>
Total Global	30,114	100%

Source: United Nations, 2011,
http://unstats.un.org/unsd/environment/air_co2_emissions.htm

Global CO₂ emissions totaled about 30,114 MMT CO₂ in 2007. China released the most CO₂ emissions. The United States was second and released 6,094 MMT CO₂ in 2007, which is approximately 20% of the earth's total emissions. The data in Table 2 emphasize the major role that the United States and China play in climate change with the emissions of the two countries accounting for 42% of the emissions.

Within the United States, California has the second highest level of GHG production with Texas having the highest. In 2001, the burning of fossil fuels produced over 81% of total

GHG emissions. In relation to other states, California is the second highest producer of CO₂ by fossil fuels, as shown in Exhibit 3.

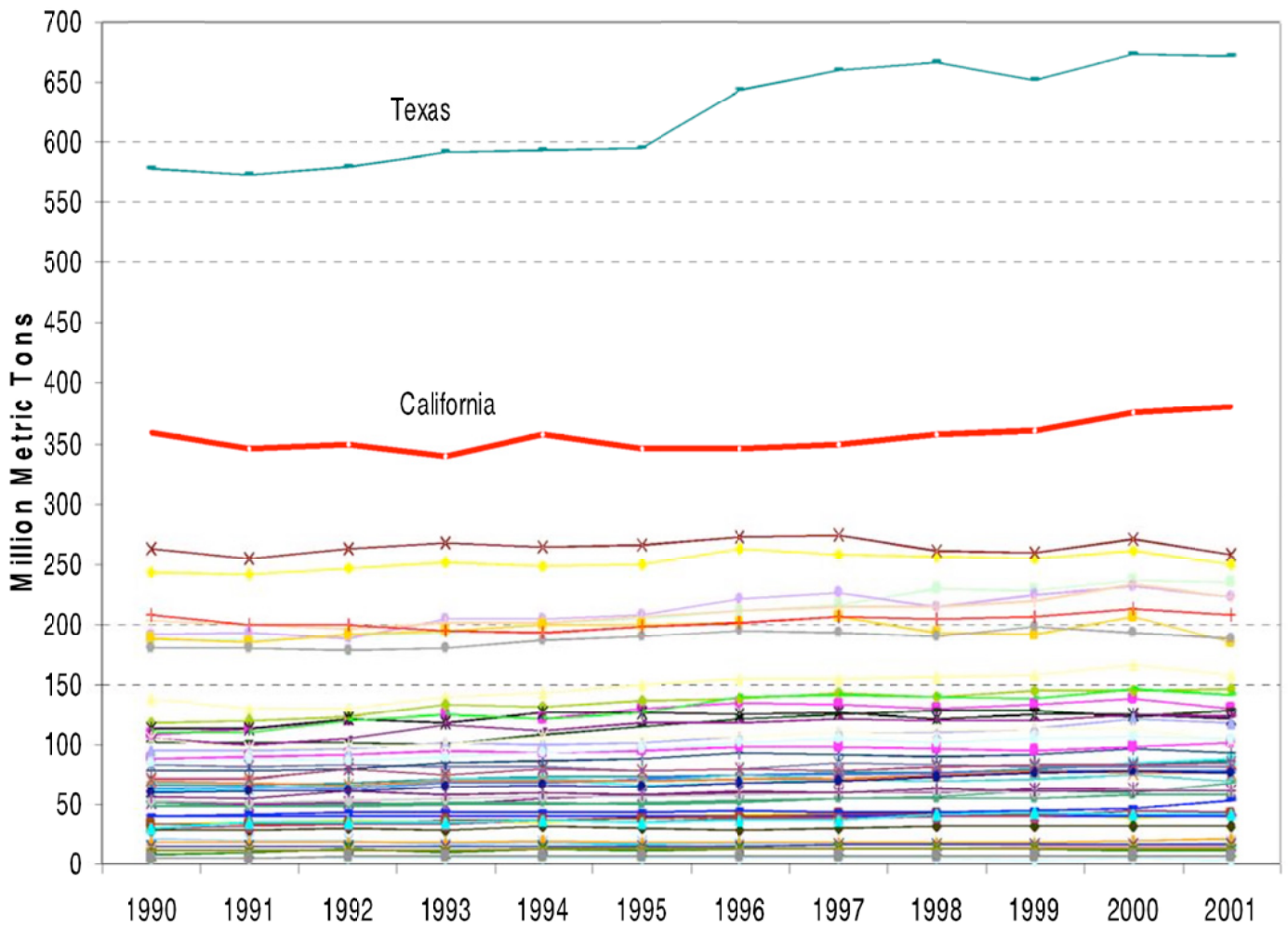
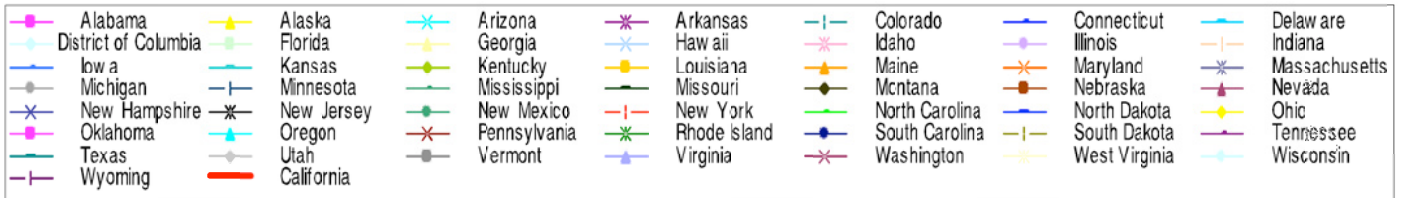
1.2.5 Sources of Greenhouse Gases in California

The California Energy Commission ("CEC") categorizes GHG generation by source into eight broad categories. The categories are:

- **Transportation** includes the combustion of gasoline and diesel in automobiles and trucks. Transportation also includes jet fuel consumption and bunker fuel for ships.
- **Agriculture** GHG emissions are composed mostly of nitrous oxide from agricultural soil management, methane from enteric fermentation, and methane and nitrous oxide from manure management.
- **Commercial and residential** uses generate GHG emissions primarily from the combustion of natural gas for space and water heating.
- **Industrial** GHG emissions are produced from many industrial activities. Major contributors include oil and natural gas extraction; crude oil refining; food processing; stone, clay, glass, and cement manufacturing; chemical manufacturing; and cement production. Wastewater treatment plants are also significant contributors to this category.
- **Electric generation** includes both emissions from power plants in California as well as power plants located outside of the state that supply electricity to the state.
- **Recycling and waste** includes primarily landfills.
- **High (GWP)** emissions consist of ozone depleting substance substitutes and electricity grid SF₆ losses.
- **Forestry** emissions are due to wildfires.

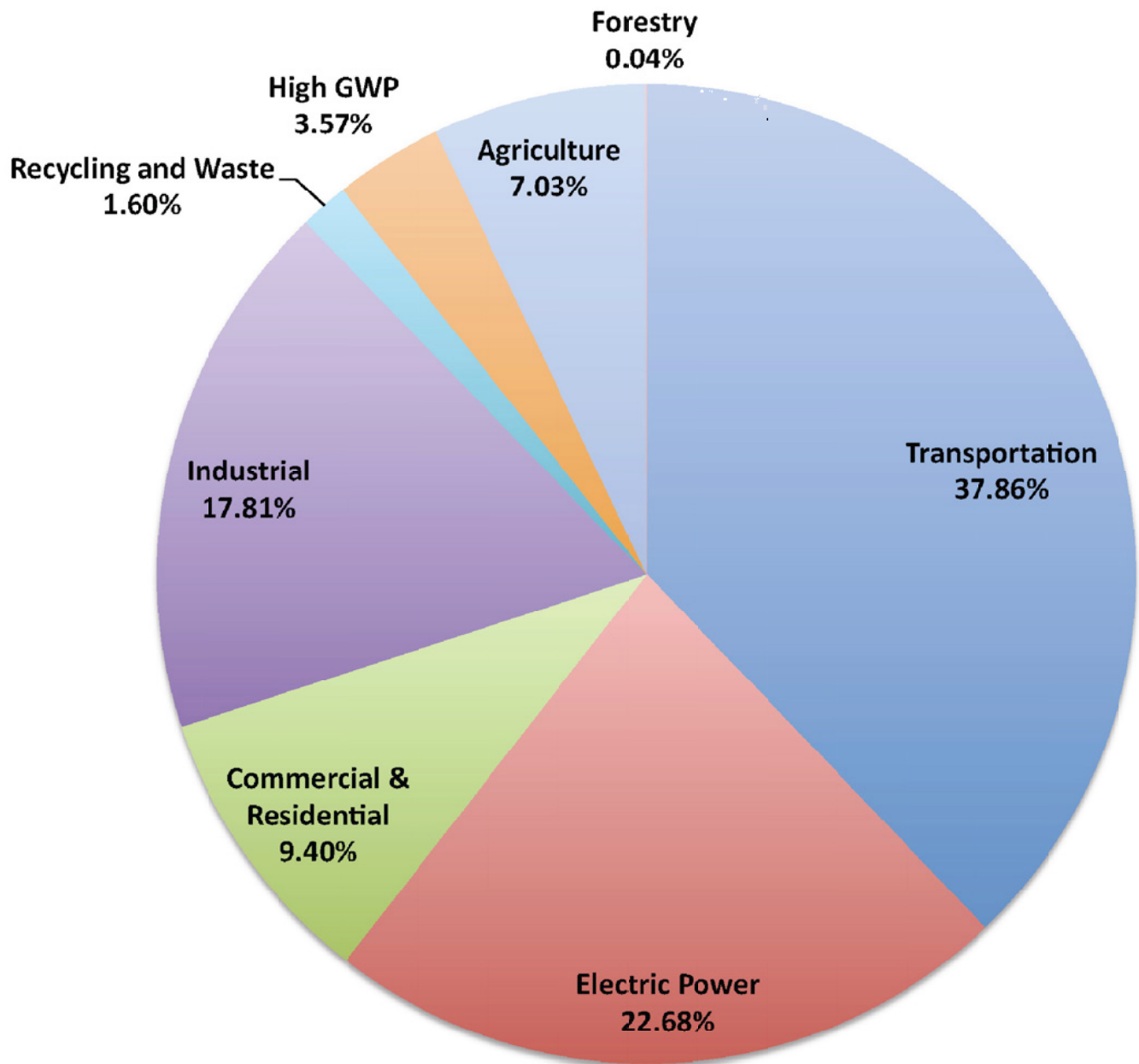
The relative amount of GHGs released from each of these categories in California in 2009 is shown in Exhibit 4 (source: "California Greenhouse Gas Inventory for 2000-2009 by Category as Defined in the Scoping Plan," California Environmental Protection Agency, October 26, 2011).

Exhibit 3 - CO2 Production by State



Source: California Energy Commission, "Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004," December 2006

Exhibit 4 - California GHG Emissions by Sector



Examination of Exhibit 4 indicates that most of California's GHGs are emitted by transportation sources, such as automobiles, trucks, and airplanes. Combustion of fossil fuels in the transportation sector contributed approximately 38% of the California GHG. This category was followed by the electric power sector (including both in-state and out-of-state sources) (23%) and the industrial sector (18%). Residential and commercial activity accounted for approximately 9% of the emissions.

While California has the second highest rate of GHG production in the nation, it should also be noted that California has one of the lowest per capita rates of GHG emissions, as shown in Exhibit 5. According to Exhibit 5, California had the fourth lowest per capita rate of CO₂ production from fossil fuels in the United States. Wyoming produced the most CO₂ per capita, while the District of Columbia produced the lowest.

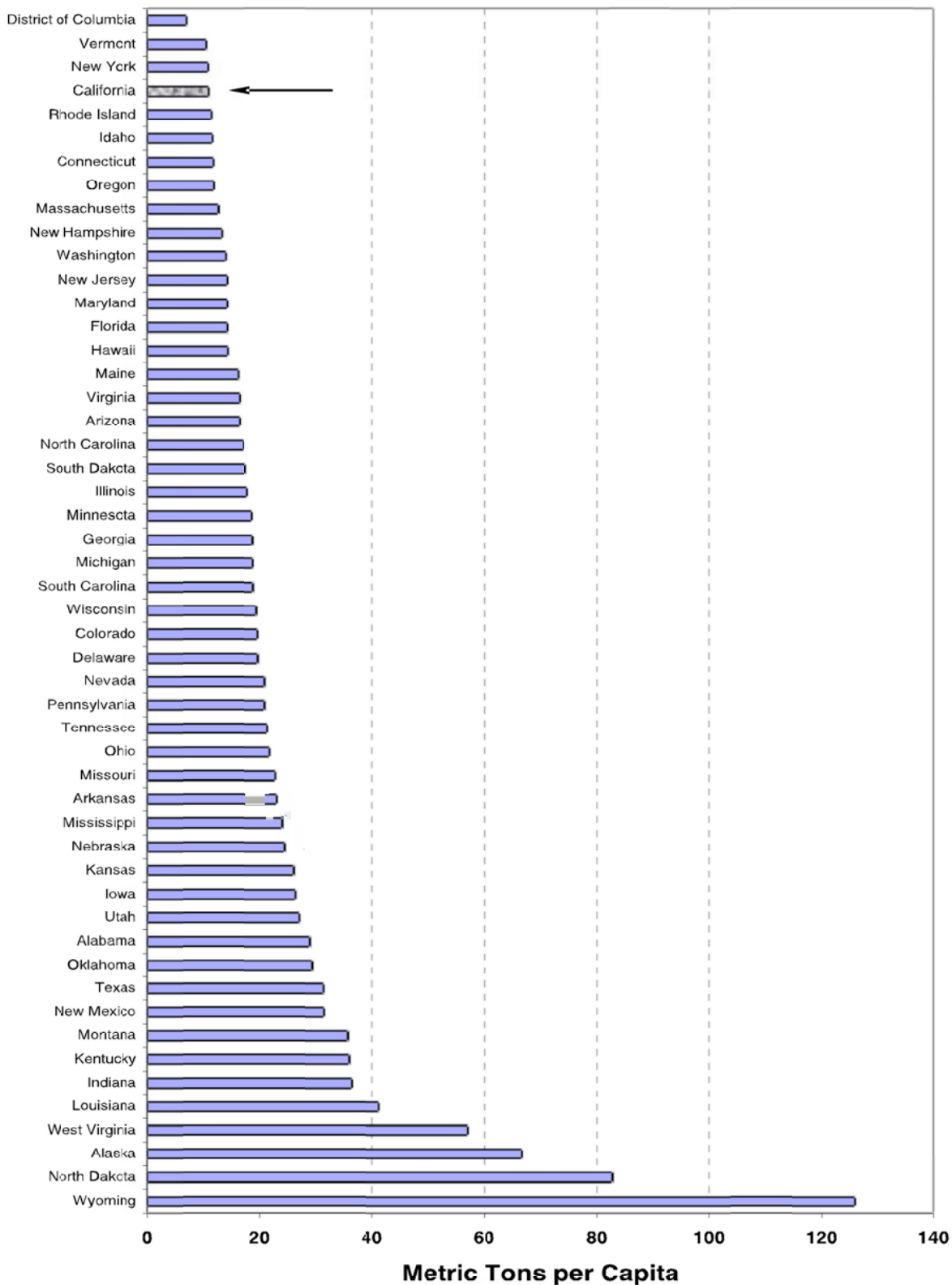
1.3 Regulatory Framework

1.3.1 Federal Plans, Policies, Regulations, and Laws.

The federal government began studying the phenomenon of global warming as early as 1978 with the National Climate Protection Act, 92 Stat. 601, which required the President to establish a program to "assist the Nation and the world to understand and respond to natural and man-induced climate processes and their implications." The 1987 Global Climate Protection Act, Title XI of Pub. L. 100-204, directed the U.S. EPA to propose a "coordinated national policy on global climate change," and ordered the Secretary of State to work "through the channels of multilateral diplomacy" to coordinate efforts to address global warming. Further, in 1992, the United States ratified a nonbinding agreement among 154 nations to reduce atmospheric GHGs.

The U.S. EPA has several regulatory initiatives to reduce greenhouse gas emissions. On August 3, 2015, the EPA issued the Clean Power Plan, which put the nation on track to cut harmful pollution from the power sector by 32 percent below 2005 levels, while also cutting smog-and soot-forming emissions that threaten public health by 20 percent. Previously, on May 13, 2010, EPA set greenhouse gas emissions thresholds to define when permits under the New Source Review Prevention of Significant Deterioration (PSD) and Title V Operating Permit programs are required for new and existing industrial facilities. This final rule "tailors" the requirements of these Clean Air Act permitting programs to limit covered facilities to the nation's largest greenhouse gas emitters: power plants, refineries, and cement production facilities.

Exhibit 5 - CO2 Emissions Per Capita (2001)



Source: California Energy Commission, "Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004," December 2006



EPA and the National Highway Traffic Safety Administration (NHTSA) are taking coordinated steps to enable the production of a new generation of clean vehicles through reduced greenhouse gas emissions and improved fuel use. Together, the enacted and proposed standards are expected to save more than six billion barrels of oil through 2025 and reduce more than 3,100 million metric tons of carbon dioxide emissions. Additionally, EPA is also responsible for developing and implementing regulations to ensure that transportation fuel sold in the United States contains a minimum volume of renewable fuel. By 2022, the Renewable Fuel Standard (RFS) program will reduce greenhouse gas emissions by 138 million metric tons, about the annual emissions of 27 million passenger vehicles, replacing about seven percent of expected annual diesel consumption and decreasing oil imports by \$41.5 billion.

The U.S. EPA has issued two proposals to further reduce GHG emissions from municipal solid waste landfills. The EPA has proposed a suite of requirements that would reduce GHG emissions from the oil and natural gas industry.

1.3.2 California State Plans, Policies, Regulations, and Laws

In the past several years, California has distinguished itself as a national leader in efforts to address global climate change by enacting several major pieces of legislation, engaging in multi-national and multi-state collaborative efforts, and preparing a wealth of information on the impacts associated with global climate change.

In November 2008, the Governor issued Executive Order S-13-08 directing state agencies to plan for sea level rise and other climate change impacts. There are four key actions in the Executive Order: (1) initiation of a climate change adaptation strategy that will assess the state's expected climate change impacts where the state is most vulnerable, with recommendations by early 2009; (2) an expert panel on sea level rise will inform state planning and development efforts; (3) interim guidance to state agencies on planning for sea level rise in coastal and floodplain areas for new projects; and (4) initiation of a report on critical existing and planned infrastructure projects vulnerable to sea level rise.

Assembly Bill 32, the California Global Warming Solutions Act of 2006 (Health and Safety Code § 38500 et seq.). In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Global Warming Solutions Act of 2006. In general, AB 32 directs the California Air Resources Board ("CARB") to do the following:

- On or before June 30, 2007, CARB shall publish a list of discrete early action measures for reducing GHG emissions that can be implemented by January 1, 2010;
- By January 1, 2008, establish the statewide GHG emissions cap for 2020, based on CARB's calculation of statewide GHG emissions in 1990 (an approximately 25 percent reduction in existing statewide GHG emissions);

- Also by January 1, 2008, adopt mandatory reporting rules for GHG emissions sources that “contribute the most to statewide emissions” (Health & Safety Code § 38530);
- By January 1, 2009, adopt a scoping plan that indicates how GHG emission reductions will be achieved from significant GHG sources through regulations, market mechanisms, and other strategies;
- On or before January 1, 2010, adopt regulations to implement the early action GHG emission reduction measures;
- On or before January 1, 2011, adopt quantifiable, verifiable, and enforceable emission reduction measures by regulation that will achieve the statewide GHG emissions limit by 2020; and
- On January 1, 2012, CARB’s GHG emissions regulations become operative.
- On January 1, 2020, achieve 1990 levels of GHG emissions.

In a December 2006 report, CARB estimated that California emitted between 425 and 468 million metric tons of CO₂ in 1990. In December 2007, CARB finalized 1990 emissions at 427 million metric tons of CO₂. In the August 2007 draft report, CARB estimated California emitted approximately 480 million metric tons of CO₂ in 2004. Based on the U.S. Census Bureau California 2007 population of 36,553,215, this would result in about 13 metric tons of CO₂ per capita.

AB 32 takes into account the relative contribution of each source or source category to protect adverse impacts on small businesses and others by requiring CARB to recommend a *de minimis* (minimal importance) threshold of GHG emissions below which emissions reduction requirements would not apply. AB 32 also allows the Governor to adjust the deadlines mentioned above for individual regulations or the entire state to the earliest feasible date in the event of extraordinary circumstances, catastrophic events, or threat of significant economic harm.

CARB “Early Action Measures” (June 30, 2007). On June 21, 2007, CARB approved its early action measures to address climate change, as required by AB 32. The three measures include: (1) a low carbon fuel standard, which will reduce the carbon-intensity in California fuels, thereby reducing total CO₂ emissions; (2) reduction of refrigerant losses from motor vehicle air conditioning system maintenance through the restriction of “do-it-yourself” automotive refrigerants; and (3) increased CH₄ (methane) capture from landfills through the required implementation of state-of-the-art capture technologies.

CARB Mandatory Reporting Regulations (December 2008). Under AB 32, CARB propounded regulations to govern mandatory greenhouse gas emissions reporting for certain sectors of the economy, most dealing with approximately 94 percent of the industrial and commercial stationary sources of emissions. Regulated entities include electricity generating facilities, electricity retail providers, oil refineries, hydrogen plants, cement plants, cogeneration facilities, and industrial sources that emit over 25,000 metric tons of CO₂ from stationary source combustion.

Senate Bill 97 (2007). By July 1, 2009, the Governor's Office of Planning and Research (OPR) is directed to prepare, develop, and transmit to the Resources Agency guidelines for the feasible mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions, as required by the California Environmental Quality Act. The Resources Agency is required to certify and adopt these guidelines by January 1, 2010. OPR is required to periodically update these guidelines as CARB implements AB 32. In addition, SB 97 states that the failure to include a discussion of greenhouse gas emissions in any CEQA document for a project funded under the Highway Safety, Traffic Reduction, Air Quality and Port Security Bond Act of 2006, or projects funded under the Disaster Preparedness and Flood Prevention Bond Act of 2006 shall not be a cause of action under CEQA. This last provision will be repealed on January 1, 2010. In response to SB 97, the Office of Planning and Research ("OPR") issued a Technical Advisory on CEQA and Climate Change in June 2008. The Advisory provides an outline of what should be included in a GHG analysis under CEQA (<http://www.opr.ca.gov/ceqa/pdfs/june08-ceqa.pdf>). In January 2009, OPR issued draft amendments to the CEQA Guidelines that address GHGs. Among the amendments are the following:

- Determining the Significance of Impacts from Greenhouse Gas Emissions (Guidelines § 15064.4);
- Thresholds of Significance (Guidelines α 15064.7(c));
- Discussion of Cumulative Impacts (Guidelines α 15130(a)(1)(B) and Guidelines § 15130(f));
- Tiering and Streamlining the Analysis of Greenhouse Gas Emissions (Guidelines § 15183.5).

Executive Order S-01-07 (2007). Executive Order S-01-07 calls for a reduction in the carbon intensity of California's transportation fuels by at least 10 percent by 2020. As noted above, the low-carbon fuel standard ("LCFS") was adopted by CARB as one of its three "early action measures" on June 21, 2007.

Senate Bill 1368 (2006) (Public Utilities Code §§ 8340-41). SB 1368 required the California Public Utilities Commission ("PUC") to establish a "GHG emission performance standard" by February 1, 2007, for all electricity providers under its jurisdiction, including the state's three

largest privately owned utilities. These utilities provide approximately 30 percent of the state's electric power. After the PUC acted, the CEC adopted a performance standard "consistent with" the PUC performance standard and applied it to local publicly-owned utilities on May 23, 2007 (over one month ahead of its June 30, 2007 deadline). Cal. Pub. Res. Code § 8341(e)(1). However, the California Office of Administrative Law ("OAL") found four alleged flaws in the CEC's rulemaking. The CEC overcame these alleged flaws and adopted reformulating regulations in August 2007.

Senate Bill 107 (2006). Senate Bill 107 ("SB 107") requires investor-owned utilities such as Pacific Gas and Electric, Southern California Edison and San Diego Gas and Electric, to generate 20 percent of their electricity from renewable sources by 2010. Previously, state law required that this target be achieved by 2017.

Senate Bill 375 (September 2008). In September 2008, SB 375 was signed by Governor Schwarzenegger. SB 375 is a comprehensive global warming bill that helps to achieve the goals of AB32. To help establish these targets, the CARB assigned a Regional Targets Advisory Committee to recommend factors to be considered and methodologies for setting greenhouse gas emission reduction targets. SB 375 also provides incentive - relief from certain CEQA requirements for development projects that are consistent with regional plans that achieve the targets. SB 375 requires CARB to develop, in collaboration with the Metropolitan Planning Organization (MPO), passenger vehicle greenhouse gas emissions reduction targets for 2020 and 2035 by September 30, 2010. The MPO is required to include and adopt, in their regional transportation plan, a sustainable community strategy that will meet the region's target provided by CARB.

Executive Order S-3-05 (June 1, 2005). Executive Order S-3-05 calls for a reduction in GHG emissions to 2000 levels by 2010; 1990 levels by 2020; and for an 80 percent reduction in GHG emissions below 1990 levels by 2050. It also directs the California Environmental Protection Agency ("CalEPA") to prepare biennial science reports on the potential impact of continued global warming on certain sectors of the California economy.

California's Renewable Energy Portfolio Standard Program (2005). In 2002, California established its Renewable Energy Portfolio Standard Program, which originally included a goal of increasing the percentage of renewable energy in the state's electricity mix to 20 percent by 2017. The state's most recent 2005 Energy Action Plan raises the renewable energy goal from 20 percent by 2017, to 33 percent by 2020.

Title 24, Part 6, California Code of Regulations (2005). In 2005, California adopted new energy efficiency standards for residential and nonresidential buildings in order to reduce California's energy consumption. This program has been partially responsible for keeping California's per capita energy use approximately flat over the past 30 years.

Assembly Bill 1493 (2002) (Health and Safety Code § 43018.5). Assembly Bill 1493 ("AB 1493") required CARB to develop and adopt the nation's first GHG emission standards for automobiles. Not only have litigants challenged their legality in federal court, but also USEPA denied California's request for a Clean Air Act waiver to implement its regulations. As of this writing, California and other states that seek to adopt California's greenhouse gas emissions standards for automobiles are challenging USEPA's denial in federal court.

Climate Action Registry (2001). California Senate Bills 1771 and 527 created the structure of the California Climate Action Registry ("Registry"), and former Governor Gray Davis signed the final version of the Registry's enabling legislation into law on October 13, 2001. These bills establish the Registry as a non-profit entity to help companies and organizations establish GHG emissions baselines against which future GHG emission reduction requirements could be applied. Using any year from 1990 forward as a base year, participants can record their annual GHG emissions with the Registry. In return for this voluntary action, the State of California promises to offer its "best efforts" to ensure that participants receive consideration for their early action if they are subject to any future state, federal, or international emissions regulatory scheme.

1.3.3 SCAQMD Plans, Policies, Regulations and Laws

The South Coast Air Quality Management District ("SCAQMD") adopted a "Policy on Global Warming and Stratospheric Ozone Depletion" in April 1990. The policy commits the SCAQMD to consider global impacts in rulemaking and in drafting revisions to the Air Quality Management Plan. In March 1992, the SCAQMD Governing Board reaffirmed this policy and adopted amendments to the policy to include the following directives:

- Phase out the use and corresponding emissions of chlorofluorocarbons (CFCs), methyl chloroform (1,1,1-trichloroethane or TCA), carbon tetrachloride, and halons by December 1995;
- Phase out the large quantity use and corresponding emissions of hydrochlorofluorocarbons (HCFCs) by the year 2000;
- Develop recycling regulations for HCFCs (e.g., SCAQMD Rules 1411 and 1415);
- Develop an emissions inventory and control strategy for methyl bromide; and,
- Support the adoption of a California GHG emission reduction goal.

The legislative and regulatory activity detailed above is expected to require significant development and implementation of energy efficient technologies and shifting of energy production to renewable sources.

1.3.4 Mt. San Antonio College GHG Plans

Mt. SAC at this time does not have an Air Quality Plan, nor does it have an Air Management or Greenhouse Gas control plan. Like many cities and counties, Mt. SAC is using the State to develop appropriate policies and plans. However, the College is in the process of adopting CEQA significance thresholds for most environmental topics. The proposed GHG threshold for a project is an increase of 3,000 metric tons per year of equivalent CO₂ (MTCO₂EQ/Yr.).

1.4 Existing Campus Emissions

Existing campus emissions were calculated using the California Emissions Estimator Model (CalEEMod). CalEEMod is a computer program developed by the SCAQMD in conjunction with the California Air Resources Board (CARB). The model calculates emissions for construction and operation of various projects. For campus emissions, the model uses the “headcount” or student enrollment data. For the existing baseline case, the headcount is 35,986.

CalEEMod calculates annual emissions for the main greenhouse gases. Output files from the CalEEMod program are presented in the Appendix. Table 3 presents the results of the CalEEMod model showing the annual greenhouse gas emissions projected for the existing academic year. The specific data utilized in calculating the emissions are provided in the Appendix.

Table 3 Existing Campus Emissions (MT/Yr.)

	CO ₂	CH ₄	N ₂ O	CO ₂ EQ
Area	1	0	0	1
Energy	7,403	0	0	7,437
Mobile	45,525	2	0	45,567
Waste	1,333	79	0	2,988
Water	695	3	0	768
Total	54,957	84	0	56,762

Mobile emissions are the most significant category of emissions. These emissions represent vehicular emissions from students, teachers, and others traveling to and from the campus. Mobile emissions represent almost 80% of the total campus emissions. The next largest category (13%) is due to energy consumption, specifically the greenhouse gas emissions that are a result of the generation of electricity needed for campus activities. The solid waste generated on campus is moved to landfills where it generates methane. This represents

about 5% of the existing greenhouse gas generating potential for the campus. Water is imported into the area and used on-campus. The importation of water uses electricity, and therefore, results in greenhouse gas generation, which is slightly above 1% of the campus GHG emissions. Area source emissions represent emissions from painting, consumer products (e.g., using aerosol sprays), etc., and represent less than 1% of the total emissions.

2.0 POTENTIAL CLIMATE CHANGE IMPACTS

2.1 Significance Thresholds

As discussed above, the CEQA Guidelines do not include or recommend any particular threshold of significance; instead, they leave that decision to the discretion of the lead agency. During the development of the CEQA Guidelines update to address GHG, the Natural Resources Agency concluded that the CEQA Guidelines do not establish significance thresholds for other potential impacts and SB97 did not authorize the development of a statewide threshold as a part of the guidelines update¹.

Early in the process of developing the guidelines The Governor's Office of Planning and Research (OPR) published a Technical Advisory² that requested CARB to recommend a method for setting significance thresholds to encourage consistency and uniformity in the CEQA analysis of the GHG emission impacts. On October 24, 2008, CARB published its proposed approach to setting significance thresholds³. Two public meetings were held to present and clarify the proposed approach and CARB received public comments on the proposal⁴. However, development of the thresholds was not continued after the close of the public comment period at the request of OPR.

Several California Air Districts have adopted significance thresholds for projects where they are the lead agency (primarily air permits for industrial projects) and have provided recommendations for significance thresholds for commercial and residential development projects. In June 2010, the Bay Area Air Quality Management District (BAAQMD) adopted CEQA guidelines with recommended GHG thresholds of significance for general development projects, which were updated in 2011. On March 5, 2012 the Alameda County Superior Court issued a judgment finding that the Air District had failed to comply with CEQA when it adopted the Thresholds and ordered the district to no longer recommend the Thresholds. SCAQMD has adopted significance thresholds for industrial projects where they are the lead agency, which included recommendations for recommended significance thresholds for development projects. However, SCAQMD has stopped working on

¹ "Final Statement of Reasons for Regulatory Action Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97" California Natural Resources Agency, December 2009. http://ceres.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf (accessed 1/22/2013)

² "CEQA AND CLIMATE CHANGE: Addressing Climate Change Through California Environmental Quality Act (CEQA) Review" June 19, 2008. <http://opr.ca.gov/docs/june08-ceqa.pdf> (accessed 1/22/2013)

³ "Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act" October 24, 2008. <http://www.arb.ca.gov/cc/localgov/ceqa/meetings/102708/prelimdraftproposal102408.pdf> (accessed 1/22/2013)

⁴ <http://www.arb.ca.gov/cc/localgov/ceqa/ceqacomm.htm> (accessed 1/22/2013)

developing these recommendations awaiting a resolution of the BAAQMD legal proceedings.

The following sections discuss the recommended CARB threshold approach, as well as the proposed SCAQMD and adopted but rescinded BAAQMD significance thresholds. Section 2.1.1 discusses CARB's significance threshold development and Section 2.1.2 discusses SCAQMD's significance threshold development. These proposed thresholds were used as guidance for the Significance Thresholds that will be used to determine the project's GHG impact potential and are described in Section 2.1.3.

2.1.1 CARB Significance Thresholds Approach

On October 24, 2008 the California Air Resources Board (CARB) published a preliminary staff proposal of approaches for setting GHG significance thresholds for CEQA. In this document, CARB considered but rejected the use of a "zero threshold" that would have identified any project emitting GHGs as being significant and asserted that a non-zero threshold can be supported by substantial evidence. Non-zero thresholds were found to be not mandated because some level of emissions is still consistent with stabilizing atmospheric GHG concentrations and that current and anticipated regulations, apart from CEQA, will proliferate and increasingly will reduce GHG contributions of past, present and future projects. However, CARB argued that any non-zero threshold must make substantial contributions in reducing the peak of the State's GHG emissions. The thresholds should cause that peak to occur sooner and put California on track to meet its interim (2020) and long-term (2050) emission reduction targets.

The CARB approach recognized that different GHG thresholds may apply in different sectors because some sectors contribute more to the problem and should be obliged to provide greater reductions and that differing levels of emissions reductions were expected from different sectors in order to meet the State's objectives. Further, the data and science suggests that sectors must be treated separately and different thresholds—qualitative, quantitative and performance-based—can apply to different sectors.

Specific threshold recommendations were proposed for the two types of projects which local agencies are typically the CEQA lead agency, industrial projects, and residential/commercial projects. However, the two approaches are similar. A non-exempt project that meets specified performance standards and whose emissions are less than a specified amount would be determined to be less than significant. For residential/commercial projects, a project that is consistent with a previously approved plan meeting the following requirements would be considered to have a less than significant impact relative to climate change:

- Addresses GHG emissions.
- Satisfies 15064(h)(3) of the California Code of Regulations.

- Meets a community level GHG target consistent with the statewide emissions limit in AB 32 and where the plan will apply beyond 2020, Executive Order S-3-05.
- Is consistent with a transportation related reduction target adopted by CARB pursuant to SB 375.
- Includes a GHG inventory and mechanisms to regularly monitor and evaluate emissions.
- Incorporates specific, enforceable GHG requirements.
- Incorporates mechanisms that allow the plan to be revised in order to meet targets.

AND

- Has a certified final CEQA document (see 15152(f)).

CARB proposed that Industrial projects that meet CARB performance standards for construction-related emissions and transportation emissions or incorporate equivalent mitigation measures AND emit less than 7,000 MT/yr. CO₂EQ from non-transportation sources would be considered less than significant. Residential/commercial projects that meet CARB performance standards for constructed related emissions, energy use, water use, waste and transportation AND emit less GHG's than a threshold to be developed later would be considered less than significant. All other projects would be presumed to be significant and implement all feasible mitigation measures. Note that the initial proposal did not specify the performance standards but left their development for later work.

In October of 2008 CARB held a public meeting to present the draft document and request public input. In December of 2008 CARB held a second public meeting that provided a refinement of the proposal including specific performance standards. The suggested construction performance standards were:

- Provide alternative transportation mode options or incentives for workers to and from worksite on days that construction requires 200 or more workers; and
- Recycle and/or salvage at least 75% of non-hazardous construction and demolition debris by weight (residential) or by weight in volume (commercial); and
- Use recycled materials for at least 20% of construction materials based on cost for building materials, based on volume for roadway, parking lot, sidewalk and curb material. Recycled materials may include salvaged, reused, and recycled content materials.

The proposed performance standards for energy use, water use, waste and transportation applicable to residential/commercial projects were:

Energy: Meet California Energy Commission's (CEC) Tier II Energy Efficiency standards in effect at the time building construction begins. At the time this represented a 30% reduction in combined space heating, cooling, and water-heating energy compared to 2008 Title 24 Standards.

Water: Provide a minimum 20% reduction in indoor potable water use and 50% reduction in outdoor potable water used for landscape irrigation over the water use level projected by the methodology in the California Green Building Code, Section 603.2 (indoor) and 604.2 (outdoor).

Waste: Where local recycling and/or composting programs exist design facilities and structures to encourage participation in the program, install adequate, accessible recycling and composting receptacles in common or public areas, AND provide easy access to central recycling and composting receptacles or collections areas.

Transportation: Residential projects demonstrate that the average vehicle miles traveled per household year year is projected not to exceed 14,000 miles. Commercial projects must be within ½ mile of residential zone with average density of 10 du/net acre AND within ½ mile of at least 10 neighborhood services AND provide pedestrian access between project and services AND institute a comprehensive transportation demand management (TDM) program to reduce employee trips by at least 20%.

In mid December CARB announced that it was extending the deadline for public comments until January 9, 2009 and after that a revised draft would be prepared and circulated for public comment prior to taking the proposal to the board for approval. However, CARBs work on developing the thresholds ceased soon after this due to the conclusions reached by OPR discussed above.

2.1.2 SCAQMD's Significance Thresholds

On December 5, 2008, the South Coast Air Quality Management District (SCAQMD) adopted GHG significance threshold for Stationary Sources, Rules and Plans where the SCAQMD is lead agency. The threshold uses a tiered approach. The project is compared with the requirements of each tier sequentially and if it complies with any tier, it is determined to not result in a significant impact.

Tier 1 excludes projects that are specifically exempt from SB97 from resulting in a significant impact. Tier 2 excludes projects that are consistent with a GHG reduction plan that has a certified final CEQA document and complies with AB 32 GHG reduction goals. Tier 3 excludes projects with annual emissions lower than a screening threshold. Tier 4 consists of

three decision tree options. Under the first option, the project would be excluded if design features and/or mitigation measures resulted in emissions 30 percent lower than business as usual emissions. Under the second option, the project would be excluded if it had early compliance with AB 32 through early implementation of CARB's Scoping Plan measures. Under the third option, project would be excluded if it met sector based performance standards. However, the specifics of the Tier 4 compliance options were not adopted by the SCAQMD board to allow further time to develop the options and coordinate with CARB's GHG significance threshold development efforts. Tier 5 would exclude projects that implement offsite mitigation (GHG reduction projects) or purchase offsets to reduce GHG emission impacts to less than the proposed screening level.

The guidance document prepared for the stationary source threshold recommended using the same tiered approach for residential and commercial projects with a 3,000 metric ton CO₂ Equivalent per year (MTCO₂EQ/yr.) Tier 3 screening threshold. However, this was not adopted as the SCAQMD Board felt that more analysis was required along with coordination with CARB's GHG significance threshold development. At subsequent meetings of the SCAQMD GHG Working Group SCAQMD staff recommended two options for the Tier 3 screening threshold for residential and commercial projects. The first option would use a 3,500 MTCO₂EQ/yr. threshold for residential projects, a 1,400 MTCO₂EQ/yr. threshold for commercial projects and a 3,000 MTCO₂EQ/yr. for mixed-use projects. The second option would apply the 3,000 MTCO₂EQ/yr. for all commercial and residential projects.

The SCAQMD proposed compliance options for Tier 4 of the significance thresholds at subsequent GHG Working Group meetings. The first option would be a reduction of 23.9% in GHG emissions over the base case. This percentage reduction is the land use sector portion of the CARB Scoping Plan's overall reduction of 28%. This target would be updated as the AB 32 Scoping Plan is revised. The base case scenario for this reduction still needs to be defined. Residual emissions would need to be less than 25,000 MTCO₂EQ/year to comply with the option. Staff proposed efficiency targets for the third option of 4.6 MTCO₂EQ/year per service population (the population of residential portions of projects plus the number of employees of commercial portions of projects.) for project level analysis and 6.6 MTCO₂EQ/year for plan level analyses. For project level analyses, residual emissions would need to be less than 25,000 MTCO₂EQ/year to comply with this option.

2.1.3 Project Significance Threshold

The Significance Threshold that will be used for this project is based on SCAQMD's suggested tiered approach, which is consistent with CARB's recommendations and consistent with the College's proposed CEQA thresholds. The project is not specifically exempted in SB97 and there are no GHG reduction plans that are consistent with the AB32 GHG reduction goals that with a certified final CEQA document that are applicable to the proposed project. Therefore, the project is not compliant with Tiers 1 or 2. The significance of the project will be determined based on compliance with the Tier 3 and 4 requirements.

The project will be considered to have a significant impact if total annual GHG emissions exceed 3,000 MT CO₂EQ. This is further supported by proposed College District CEQA thresholds that use an annual limit of 3,000 MTCO₂EQ. If the 3,000 threshold is exceeded then the annual emissions per service population (the number of students and persons employed by the college complex in this case) should not exceed 4.6 MTCO₂EQ/yr, or a significant impact will be determined. Note that the methodology recommends that total construction emissions be amortized over a 30-year period or the project's expected lifetime if it is less than 30 years.

2.2 Construction Emissions

Temporary impacts will result from construction activities. The primary source of GHG emissions generated by construction activities is from use of diesel-powered construction equipment. Typical emission rates for construction equipment were obtained from CalEEMod (California Emissions Estimator Model). CalEEMod is a computer program that can be used to estimate emissions including operation (vehicle and area) sources, as well as construction projects.

Most construction projects will involve six phases; demolition, site preparation, grading, paving, and painting. Major construction projects that are part of the analysis include construction of Building G, Building A, PEP Phase 1, and PEP Phase 2. Construction GHG emissions are forecast for each of these four projects. These four projects have tentative schedules for construction. The emissions from the rest of the 2015 FMPU projects, which have not yet been scheduled and generally are smaller projects, are then forecast.

2.2.1 Construction Emissions for Building G

Construction of Building G, the Laboratory Building Expansion, will include construction of an approximately 50,000 gross square foot (gsf) building by 2020. The construction of Building G, and later the adjacent Building A, will require the demolition of Buildings 16, 17, 18, 19 and 21. It was assumed that all of these buildings would be demolished as part of the Building G construction.

Emissions during the phases of construction were calculated using the California Emissions Estimator Model (CalEEMod). The appropriate number of acres, square footage of demolition, square footage of Building G, and other key elements of the project were input into the CalEEMod to generate the estimate of emissions. It was also assumed that the overlap between construction phases would be minimal. Only mitigation required by the Mitigation Monitoring Program is assumed for this analysis. Specifically, only paints with a volatile organic content (VOC) of 75 grams per liter (g/l) will be used, and watering twice per day will be employed during grading. CalEEMod printouts are included in the Appendix.

Table 4 presents the results of the emissions calculations for the construction activities discussed above. The total construction emissions are presented below. Additionally, the emissions when amortized over a 30-year period are also shown.

Table 4 GHG Emissions for Building G Construction (Metric Tons Per Year)

	CO2	CH4	N2O	CO2EQ
Total Construction Emissions (Metric Tons)	395.7	0.1	0.0	397.6
Averaged Over 30 Years (Metric Tons Per Year)	13.2	0.00	0.00	13.3

MTCO2EQ = metric tons equivalent carbon dioxide (CO2).

2.2.2 Construction Emissions for Building A

Construction of Building A, the Library/Campus Center, will include construction of an approximately 167,200 gross square foot (gsf) building by 2025. Demolition will be required to clear the site for Building A, but this was assumed to occur during the construction of Building G.

Table 5 presents the results of the emissions calculations for the construction activities discussed above. The total construction emissions are presented below. Additionally, the emissions when amortized over a 30-year period are also shown. CalEEMod printouts are included in the Appendix.

Table 5 GHG Emissions for Building A Construction (Metric Tons Per Year)

	CO2	CH4	N2O	CO2EQ
Total Construction Emissions (Metric Tons)	248.6	0.0	0.0	249.4
Averaged Over 30 Years (Metric Tons Per Year)	8.3	0.0	0.0	8.3

MTCO2EQ = metric tons equivalent carbon dioxide (CO2).

2.2.3 Construction Emissions for PEP Phase 1

Construction of the Physical Education Projects (PEP) will occur in two phases. The first phase roughly starts in October 2016 and ends in August 2018. The second phase of construction would occur from roughly February 2018 and be complete by August 2020.

Phase 1 will include demolition of the existing stadium, construction of a new stadium, a new Field House, installation of several practice fields and other improvements. The plan for the PEP area at the end of Phase 1 is shown in Exhibit 6.

Table 6 presents the results of the emissions calculations for the construction activities discussed above. The total construction emissions are presented below. Additionally, the emissions when amortized over a 30-year period are also shown. CalEEMod printouts are included in the Appendix.

Table 6 GHG Emissions for PEP Phase 1 (Metric Tons Per Year)

	CO2	CH4	N2O	CO2EQ
Total Construction Emissions (Metric Tons)	3,169.3	0.3	0.0	3,174.7
Averaged Over 30 Years (Metric Tons Per Year)	105.6	0.0	0.0	105.8

MTCO2EQ = metric tons equivalent carbon dioxide (CO2).

Exhibit 6 - PEP Phase 1



2.2.4 Construction Emissions for PEP Phase 2

PEP Phase 2 will include the construction of a gymnasium and aquatic center, 50 meter pool, diving pool, and nine tennis courts. The plan PEP Phase 2 is shown in Exhibit 7. Emissions during the phases of construction were calculated using the California Emissions Estimator Model (CalEEMod) similar to the approach used to model PEP Phase 1.

Table 7 presents the results of the emissions calculations for the construction activities discussed above. The total construction emissions are presented below. Additionally, the emissions when amortized over a 30-year period are also shown. CalEEMod printouts are included in the Appendix.

Table 7 GHG Emissions for PEP Phase 2 (Metric Tons Per Year)

	CO2	CH4	N2O	CO2EQ
Total Construction Emissions (Metric Tons)	1,263.9	0.2	0.0	1,267.8
Averaged Over 30 Years (Metric Tons Per Year)	42.1	0.0	0.0	42.3

MTCO2EQ = metric tons equivalent carbon dioxide (CO2).

Exhibit 7 - PEP Phase 2



2.2.5 2015 FMPU Construction Emissions

The long-term buildout of the 2015 FMPU will result in new construction of 454,485 square feet (including PEP). To make room for some of the new construction, demolition of some existing buildings is necessary. The FMPU indicates that approximately 122,976 square feet will be demolished. Some parts of the FMPU may be completed by 2017 while other parts would not be completed until 2020. Therefore, the entire FMPU (excluding PEP, construction of Buildings A and G, and demolition necessary for Buildings A and G) was modeled using early years (e.g., 2017) since the emissions factors for heavy equipment decrease slightly for later years. Note that the PEP and Buildings A and G represent the largest projects proposed as part of the FMPU, and only a small amount of construction and demolition are not already accounted for.

Table 8 presents the results of the emissions calculations for the construction and demolition activities discussed above. The construction emissions for the buildout of the FMPU without PEP and Buildings A and G are presented below in Table 8. Table 9 presents the construction emissions for all of the 2015 FMPU including PEP, and Buildings A and G. Additionally, the emissions when amortized over a 30-year period are also shown. CalEEMod printouts are included in the Appendix.

Table 8 GHG Emissions for FMPU With Exclusions (1) (Metric Tons Per Year)

	CO2	CH4	N2O	CO2EQ
Total Construction Emissions (Metric Tons)	84.9	0.0	0.0	85.3
Averaged Over 30 Years (Metric Tons Per Year)	2.8	0.0	0.0	2.8

1. Excludes construction and demolition emissions associated with PEP Phase 1, PEP Phase 2, Building A, and Building G.

Construction and demolition emissions for all new projects proposed as part of the 2015 FMPU were summed. The results are presented in Table 9. It shows that the amortized construction emissions for the FMPU are 172.5 MTCO2EQ per year.

**Table 9 GHG Emissions for FMPU All Projects
(Metric Tons Per Year)**

Project	CO2EQ
Building G	13.3
Building A	8.3
PEP Phase 1	105.8
PEP Phase 2	42.3
Remainder FMPU	2.8
Total	172.5

2.3 Operational Emissions

The realization of the FMPU will result in increases in student enrollment (headcount) as additional and newer facilities are brought online. By the academic year 2020-2021 the headcount is anticipated to increase 3,745 over baseline up to a total headcount of 39,731. By the academic year 2025-2026, the headcount is anticipated to increase to 43,139, which is an increase of 7,153 over baseline.

The CalEEMod was used to project the emissions for the 2020 and 2025 academic years. The results presented below are the annual operational GHG emissions based on headcount. Output files from the CalEEMod program are presented in the appendix. Table 10 presents the results of the CalEEMod model showing the maximum daily air pollutant emissions projected for the existing, 2020, and 2025 academic years. The change between the existing (baseline) case and the future academic years are also shown. A negative number indicates a decrease in emissions, while a positive number indicates an increase over existing levels. The change in emissions is also compared to the College thresholds, which are based on the SCAQMD draft threshold guidance. The specific data utilized in calculating the emissions are provided in the Appendix.

**Table 10 Changes in Operational GHG Emissions
(Metric Tons Per Year)**

	CO2EQ
Existing	56,762
Year 2020	55,764
Change	-997
Year 2025	59,006
Change	2,245
<i>College & SCAQMD Thresholds</i>	<i>3,000</i>
<i>Exceed Thresholds for 2020</i>	<i>No</i>
<i>Exceed Thresholds for 2025</i>	<i>No</i>

The analysis indicates that the emissions of greenhouse gas will decrease between now and 2020 even though the headcount will increase. The energy efficiency of motor vehicles will continue to increase in future years resulting in lower GHG emissions, and will more than offset the increase in headcount. GHG emissions will increase between 2020 and 2025 because the headcount is anticipated to increase significantly during this time. However, the increase between existing and 2025 GHG emissions is only 2,245 metric tons per year of equivalent CO₂ (MTCO₂EQ). Again the emission rates for GHG will go down in future years, partially offsetting a portion of the increase in emissions caused by increasing headcount for 2025.

The College has proposed a threshold of 3,000 MTCO₂EQ per year as a significance threshold, and this threshold is based in part on SCAQMD draft recommendations. In all cases, the GHG emission increases are projected to be less than the threshold. Therefore, a less than significant impact on climate change is projected.

2.4 Construction Plus Operational Emissions

The change in GHG emissions due to the project, both operational and construction is shown in Table 11. The change in operational emissions presented previously in Table 10, are combined with the annualized construction emissions presented in Table 9. The total impact of the proposed project on GHG emissions is presented in the final line of the table.

Table 11 Change in GHG Emissions (MTCO₂EQ/Yr.)

	2020	2025
Change in Operational Emissions	-997	2,245
New Annualized Construction Emissions	173	173
Total Change in Annual Emissions	-824	2,418

Table 11 shows that the total GHG emissions for the project will be less in 2020 by about 824 MTCO₂EQ per year. By 2025, there will be an increase of about 2,418 MTCO₂EQ per year. This is lower than the draft SCAQMD and College screening thresholds of 3,000 MTCO₂EQ per year. The project emissions are below the threshold requirements of 3,000 MTCO₂EQ per year, and therefore, climate change impacts will be less than significant.

It should be noted that the GHG emissions for the buildout of the 2015 FMPU is below the threshold, and therefore, all of the projects within the 2015 FMPU will be consistent with the GHG threshold requirement. No further environmental analysis of GHG emissions will be needed for projects included in the 2015 FMPU. Therefore, projects in the 2015 FMPU such as Building A, Building G, PEP Phase 1, and PEP Phase 2 will not result in significant GHG emission increases and will not require an additional GHG analysis.

3.0 MITIGATION MEASURES

No mitigation measures are required since the project will result in in greenhouse gas emissions below the draft SCAQMD and College thresholds.

4.0 REFERENCES

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State of California Department of Water Resources (DWR), Climate Change Adaptation Strategies for California's Water, October 2008

Appendix

Mt. SAC FMPU - Existing
South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	35,986.00	Student	420.00	1,570,869.41	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2015
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	630.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Headcount data from Iteris.

Lot acreage from Project Description

Table Name	Column Name	Default Value	New Value
tblLandUse	LotAcreage	36.06	420.00
tblProjectCharacteristics	OperationalYear	2014	2015

2.0 Emissions Summary

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	7.5436	4.6000e-003	0.4751	3.0000e-005		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	0.8931	0.8931	2.5900e-003	0.0000	0.9474
Energy	0.2412	2.1923	1.8415	0.0132		0.1666	0.1666		0.1666	0.1666	0.0000	7,403.3349	7,403.3349	0.2764	0.0915	7,437.4924
Mobile	23.7230	70.6780	271.1154	0.5553	37.9951	0.9750	38.9701	10.1657	0.8957	11.0615	0.0000	45,525.4227	45,525.4227	1.9861	0.0000	45,567.1310
Waste						0.0000	0.0000		0.0000	0.0000	1,333.1310	0.0000	1,333.1310	78.7858	0.0000	2,987.6324
Water						0.0000	0.0000		0.0000	0.0000	24.4443	670.2510	694.6953	2.5415	0.0657	768.4198
Total	31.5077	72.8749	273.4320	0.5685	37.9951	1.1433	39.1384	10.1657	1.0641	11.2298	1,357.5753	53,599.9017	54,957.4770	83.5923	0.1571	56,761.6229

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	7.5436	4.6000e-003	0.4751	3.0000e-005		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	0.8931	0.8931	2.5900e-003	0.0000	0.9474
Energy	0.2412	2.1923	1.8415	0.0132		0.1666	0.1666		0.1666	0.1666	0.0000	7,403.3349	7,403.3349	0.2764	0.0915	7,437.4924
Mobile	23.7230	70.6780	271.1154	0.5553	37.9951	0.9750	38.9701	10.1657	0.8957	11.0615	0.0000	45,525.4227	45,525.4227	1.9861	0.0000	45,567.1310
Waste						0.0000	0.0000		0.0000	0.0000	1,333.1310	0.0000	1,333.1310	78.7858	0.0000	2,987.6324
Water						0.0000	0.0000		0.0000	0.0000	24.4443	670.2510	694.6953	2.5410	0.0656	768.3808
Total	31.5077	72.8749	273.4320	0.5685	37.9951	1.1433	39.1384	10.1657	1.0641	11.2298	1,357.5753	53,599.9017	54,957.4770	83.5918	0.1570	56,761.5839

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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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	0.06	0.00
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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	23.7230	70.6780	271.1154	0.5553	37.9951	0.9750	38.9701	10.1657	0.8957	11.0615	0.0000	45,525.4227	45,525.4227	1.9861	0.0000	45,567.1310
Unmitigated	23.7230	70.6780	271.1154	0.5553	37.9951	0.9750	38.9701	10.1657	0.8957	11.0615	0.0000	45,525.4227	45,525.4227	1.9861	0.0000	45,567.1310

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	43,183.20	15,114.12	1,439.44	100,305,908	100,305,908
Total	43,183.20	15,114.12	1,439.44	100,305,908	100,305,908

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	16.60	8.40	6.90	6.40	88.60	5.00	92	7	1

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.514499	0.060499	0.179997	0.139763	0.042095	0.006675	0.015446	0.029572	0.001914	0.002508	0.004341	0.000594	0.002098

5.0 Energy Detail

4.4 Fleet Mix

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	5,016.7639	5,016.7639	0.2306	0.0477	5,036.3971
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	5,016.7639	5,016.7639	0.2306	0.0477	5,036.3971
NaturalGas Mitigated	0.2412	2.1923	1.8415	0.0132		0.1666	0.1666		0.1666	0.1666	0.0000	2,386.5710	2,386.5710	0.0457	0.0438	2,401.0953
NaturalGas Unmitigated	0.2412	2.1923	1.8415	0.0132		0.1666	0.1666		0.1666	0.1666	0.0000	2,386.5710	2,386.5710	0.0457	0.0438	2,401.0953

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)	4.47227e+07	0.2412	2.1923	1.8415	0.0132		0.1666	0.1666		0.1666	0.1666	0.0000	2,386.5710	2,386.5710	0.0457	0.0438	2,401.0953
Total		0.2412	2.1923	1.8415	0.0132		0.1666	0.1666		0.1666	0.1666	0.0000	2,386.5710	2,386.5710	0.0457	0.0438	2,401.0953

Mitigated

	Natural Gas 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)	4.47227e+07	0.2412	2.1923	1.8415	0.0132		0.1666	0.1666		0.1666	0.1666	0.0000	2,386.5710	2,386.5710	0.0457	0.0438	2,401.0953
Total		0.2412	2.1923	1.8415	0.0132		0.1666	0.1666		0.1666	0.1666	0.0000	2,386.5710	2,386.5710	0.0457	0.0438	2,401.0953

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	1.75309e+07	5,016.7639	0.2306	0.0477	5,036.3971
Total		5,016.7639	0.2306	0.0477	5,036.3971

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	1.75309e+07	5,016.7639	0.2306	0.0477	5,036.3971
Total		5,016.7639	0.2306	0.0477	5,036.3971

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	7.5436	4.6000e-003	0.4751	3.0000e-005		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	0.8931	0.8931	2.5900e-003	0.0000	0.9474
Unmitigated	7.5436	4.6000e-003	0.4751	3.0000e-005		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	0.8931	0.8931	2.5900e-003	0.0000	0.9474

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	1.8203					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.6763					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0470	4.6000e-003	0.4751	3.0000e-005		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	0.8931	0.8931	2.5900e-003	0.0000	0.9474
Total	7.5436	4.6000e-003	0.4751	3.0000e-005		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	0.8931	0.8931	2.5900e-003	0.0000	0.9474

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	1.8203					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	5.6763					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0470	4.6000e-003	0.4751	3.0000e-005		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	0.8931	0.8931	2.5900e-003	0.0000	0.9474
Total	7.5436	4.6000e-003	0.4751	3.0000e-005		1.7200e-003	1.7200e-003		1.7200e-003	1.7200e-003	0.0000	0.8931	0.8931	2.5900e-003	0.0000	0.9474

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	694.6953	2.5410	0.0656	768.3808
Unmitigated	694.6953	2.5415	0.0657	768.4198

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	77.0496 / 120.514	694.6953	2.5415	0.0657	768.4198

Total		694.6953	2.5415	0.0657	768.4198
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Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	77.0496 / 120.514	694.6953	2.5410	0.0656	768.3808
Total		694.6953	2.5410	0.0656	768.3808

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1,333.1310	78.7858	0.0000	2,987.6324
Unmitigated	1,333.1310	78.7858	0.0000	2,987.6324

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	6567.44	1,333.1310	78.7858	0.0000	2,987.6324
Total		1,333.1310	78.7858	0.0000	2,987.6324

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	6567.44	1,333.1310	78.7858	0.0000	2,987.6324
Total		1,333.1310	78.7858	0.0000	2,987.6324

9.0 Operational Offroad

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

Construction emission data removed because it was not relevant to the analysis.

MtSAC FMPU - Building G Construction Including Demolition
South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	50.00	1000sqft	5.00	50,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	630.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Acreage corresponds to demolition area.

Construction Phase -

Demolition -

Architectural Coating - Maximum VOC is 75 g/l per Mitigation Monitoring Program

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	75.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	75.00
tblArchitecturalCoating	EF_Residential_Exterior	100.00	75.00
tblConstructionPhase	PhaseEndDate	1/2/2020	1/3/2020
tblConstructionPhase	PhaseStartDate	2/15/2019	2/16/2019

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2019	1/28/2019	5	20	
2	Site Preparation	Site Preparation	1/29/2019	2/4/2019	5	5	
3	Grading	Grading	2/5/2019	2/14/2019	5	8	
4	Building Construction	Building Construction	2/16/2019	1/3/2020	5	230	
5	Paving	Paving	1/4/2020	1/29/2020	5	18	
6	Architectural Coating	Architectural Coating	1/30/2020	2/24/2020	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 75,000; Non-Residential Outdoor: 25,000 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	162	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Grading	Excavators	1	8.00	162	0.38
Paving	Pavers	2	8.00	125	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37

Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Graders	1	8.00	174	0.41
Paving	Paving Equipment	2	8.00	130	0.36
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	261.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	21.00	8.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

3.2 Demolition - 2019

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Fugitive Dust					0.0283	0.0000	0.0283	4.2800e-003	0.0000	4.2800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0332	0.3394	0.3081	4.0000e-004		0.0165	0.0165		0.0153	0.0153	0.0000	35.6454	35.6454	9.9600e-003	0.0000	35.8545

Total	0.0332	0.3394	0.3081	4.0000e-004	0.0283	0.0165	0.0447	4.2800e-003	0.0153	0.0196	0.0000	35.6454	35.6454	9.9600e-003	0.0000	35.8545
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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	2.0700e-003	0.0299	0.0264	1.0000e-004	2.2400e-003	5.2000e-004	2.7600e-003	6.1000e-004	4.8000e-004	1.0900e-003	0.0000	8.3364	8.3364	6.0000e-005	0.0000	8.3377
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	6.7000e-004	6.8900e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3730	1.3730	7.0000e-005	0.0000	1.3744
Total	2.5200e-003	0.0306	0.0333	1.2000e-004	3.8900e-003	5.3000e-004	4.4200e-003	1.0500e-003	4.9000e-004	1.5400e-003	0.0000	9.7093	9.7093	1.3000e-004	0.0000	9.7120

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					0.0127	0.0000	0.0127	1.9200e-003	0.0000	1.9200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0332	0.3394	0.3081	4.0000e-004		0.0165	0.0165		0.0153	0.0153	0.0000	35.6454	35.6454	9.9600e-003	0.0000	35.8544
Total	0.0332	0.3394	0.3081	4.0000e-004	0.0127	0.0165	0.0292	1.9200e-003	0.0153	0.0172	0.0000	35.6454	35.6454	9.9600e-003	0.0000	35.8544

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	2.0700e-003	0.0299	0.0264	1.0000e-004	2.2400e-003	5.2000e-004	2.7600e-003	6.1000e-004	4.8000e-004	1.0900e-003	0.0000	8.3364	8.3364	6.0000e-005	0.0000	8.3377
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.5000e-004	6.7000e-004	6.8900e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3730	1.3730	7.0000e-005	0.0000	1.3744
Total	2.5200e-003	0.0306	0.0333	1.2000e-004	3.8900e-003	5.3000e-004	4.4200e-003	1.0500e-003	4.9000e-004	1.5400e-003	0.0000	9.7093	9.7093	1.3000e-004	0.0000	9.7120

3.3 Site Preparation - 2019

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					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0101	0.1063	0.0870	1.0000e-004		5.3800e-003	5.3800e-003		4.9500e-003	4.9500e-003	0.0000	8.7923	8.7923	2.7800e-003	0.0000	8.8507
Total	0.0101	0.1063	0.0870	1.0000e-004	0.0452	5.3800e-003	0.0506	0.0248	4.9500e-003	0.0298	0.0000	8.7923	8.7923	2.7800e-003	0.0000	8.8507

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	2.0000e-004	2.0700e-003	1.0000e-005	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4119	0.4119	2.0000e-005	0.0000	0.4123

Total	1.3000e-004	2.0000e-004	2.0700e-003	1.0000e-005	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4119	0.4119	2.0000e-005	0.0000	0.4123
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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					0.0203	0.0000	0.0203	0.0112	0.0000	0.0112	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0101	0.1063	0.0870	1.0000e-004		5.3800e-003	5.3800e-003		4.9500e-003	4.9500e-003	0.0000	8.7923	8.7923	2.7800e-003	0.0000	8.8507
Total	0.0101	0.1063	0.0870	1.0000e-004	0.0203	5.3800e-003	0.0257	0.0112	4.9500e-003	0.0161	0.0000	8.7923	8.7923	2.7800e-003	0.0000	8.8507

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	2.0000e-004	2.0700e-003	1.0000e-005	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4119	0.4119	2.0000e-005	0.0000	0.4123
Total	1.3000e-004	2.0000e-004	2.0700e-003	1.0000e-005	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4119	0.4119	2.0000e-005	0.0000	0.4123

3.4 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0262	0.0000	0.0262	0.0135	0.0000	0.0135	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0110	0.1135	0.0936	1.2000e-004		6.1300e-003	6.1300e-003		5.6400e-003	5.6400e-003	0.0000	10.6837	10.6837	3.3800e-003	0.0000	10.7547
Total	0.0110	0.1135	0.0936	1.2000e-004	0.0262	6.1300e-003	0.0323	0.0135	5.6400e-003	0.0191	0.0000	10.6837	10.6837	3.3800e-003	0.0000	10.7547

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	2.7000e-004	2.7600e-003	1.0000e-005	6.6000e-004	1.0000e-005	6.6000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5492	0.5492	3.0000e-005	0.0000	0.5497
Total	1.8000e-004	2.7000e-004	2.7600e-003	1.0000e-005	6.6000e-004	1.0000e-005	6.6000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5492	0.5492	3.0000e-005	0.0000	0.5497

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					0.0118	0.0000	0.0118	6.0600e-003	0.0000	6.0600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0110	0.1135	0.0936	1.2000e-004		6.1300e-003	6.1300e-003		5.6400e-003	5.6400e-003	0.0000	10.6837	10.6837	3.3800e-003	0.0000	10.7547
Total	0.0110	0.1135	0.0936	1.2000e-004	0.0118	6.1300e-003	0.0179	6.0600e-003	5.6400e-003	0.0117	0.0000	10.6837	10.6837	3.3800e-003	0.0000	10.7547

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.5100e-003	0.0630	0.0927	2.0000e-004	5.5900e-003	1.0300e-003	6.6200e-003	1.6000e-003	9.5000e-004	2.5500e-003	0.0000	16.9741	16.9741	1.2000e-004	0.0000	16.9767
Worker	7.0800e-003	0.0106	0.1095	3.2000e-004	0.0262	2.0000e-004	0.0264	6.9400e-003	1.9000e-004	7.1300e-003	0.0000	21.8163	21.8163	1.0600e-003	0.0000	21.8386
Total	0.0136	0.0736	0.2022	5.2000e-004	0.0317	1.2300e-003	0.0330	8.5400e-003	1.1400e-003	9.6800e-003	0.0000	38.7905	38.7905	1.1800e-003	0.0000	38.8153

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2669	2.3795	1.9432	3.0400e-003		0.1459	0.1459		0.1371	0.1371	0.0000	265.7290	265.7290	0.0647	0.0000	267.0867
Total	0.2669	2.3795	1.9432	3.0400e-003		0.1459	0.1459		0.1371	0.1371	0.0000	265.7290	265.7290	0.0647	0.0000	267.0867

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.5100e-003	0.0630	0.0927	2.0000e-004	5.5900e-003	1.0300e-003	6.6200e-003	1.6000e-003	9.5000e-004	2.5500e-003	0.0000	16.9741	16.9741	1.2000e-004	0.0000	16.9767
Worker	7.0800e-003	0.0106	0.1095	3.2000e-004	0.0262	2.0000e-004	0.0264	6.9400e-003	1.9000e-004	7.1300e-003	0.0000	21.8163	21.8163	1.0600e-003	0.0000	21.8386
Total	0.0136	0.0736	0.2022	5.2000e-004	0.0317	1.2300e-003	0.0330	8.5400e-003	1.1400e-003	9.6800e-003	0.0000	38.7905	38.7905	1.1800e-003	0.0000	38.8153

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.1700e-003	0.0286	0.0252	4.0000e-005		1.6700e-003	1.6700e-003		1.5700e-003	1.5700e-003	0.0000	3.4598	3.4598	8.4000e-004	0.0000	3.4775
Total	3.1700e-003	0.0286	0.0252	4.0000e-005		1.6700e-003	1.6700e-003		1.5700e-003	1.5700e-003	0.0000	3.4598	3.4598	8.4000e-004	0.0000	3.4775

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	8.0000e-005	7.3000e-004	1.1900e-003	0.0000	7.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2193	0.2193	0.0000	0.0000	0.2193
Worker	9.0000e-005	1.3000e-004	1.3500e-003	0.0000	3.5000e-004	0.0000	3.5000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2766	0.2766	1.0000e-005	0.0000	0.2769
Total	1.7000e-004	8.6000e-004	2.5400e-003	0.0000	4.2000e-004	1.0000e-005	4.4000e-004	1.1000e-004	1.0000e-005	1.2000e-004	0.0000	0.4959	0.4959	1.0000e-005	0.0000	0.4962

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
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Category	tons/yr										MT/yr					
Off-Road	3.1700e-003	0.0286	0.0252	4.0000e-005		1.6700e-003	1.6700e-003		1.5700e-003	1.5700e-003	0.0000	3.4597	3.4597	8.4000e-004	0.0000	3.4775
Total	3.1700e-003	0.0286	0.0252	4.0000e-005		1.6700e-003	1.6700e-003		1.5700e-003	1.5700e-003	0.0000	3.4597	3.4597	8.4000e-004	0.0000	3.4775

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	8.0000e-005	7.3000e-004	1.1900e-003	0.0000	7.0000e-005	1.0000e-005	9.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2193	0.2193	0.0000	0.0000	0.2193
Worker	9.0000e-005	1.3000e-004	1.3500e-003	0.0000	3.5000e-004	0.0000	3.5000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2766	0.2766	1.0000e-005	0.0000	0.2769
Total	1.7000e-004	8.6000e-004	2.5400e-003	0.0000	4.2000e-004	1.0000e-005	4.4000e-004	1.1000e-004	1.0000e-005	1.2000e-004	0.0000	0.4959	0.4959	1.0000e-005	0.0000	0.4962

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0120	0.1241	0.1292	2.0000e-004		6.6500e-003	6.6500e-003		6.1200e-003	6.1200e-003	0.0000	17.6419	17.6419	5.7100e-003	0.0000	17.7617
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0120	0.1241	0.1292	2.0000e-004		6.6500e-003	6.6500e-003		6.1200e-003	6.1200e-003	0.0000	17.6419	17.6419	5.7100e-003	0.0000	17.7617

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	5.5000e-004	5.7700e-003	2.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.1855	1.1855	6.0000e-005	0.0000	1.1867
Total	3.8000e-004	5.5000e-004	5.7700e-003	2.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.1855	1.1855	6.0000e-005	0.0000	1.1867

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0120	0.1241	0.1292	2.0000e-004		6.6500e-003	6.6500e-003		6.1200e-003	6.1200e-003	0.0000	17.6418	17.6418	5.7100e-003	0.0000	17.7617
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0120	0.1241	0.1292	2.0000e-004		6.6500e-003	6.6500e-003		6.1200e-003	6.1200e-003	0.0000	17.6418	17.6418	5.7100e-003	0.0000	17.7617

Mitigated Construction Off-Site

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	5.5000e-004	5.7700e-003	2.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.1855	1.1855	6.0000e-005	0.0000	1.1867
Total	3.8000e-004	5.5000e-004	5.7700e-003	2.0000e-005	1.4800e-003	1.0000e-005	1.4900e-003	3.9000e-004	1.0000e-005	4.0000e-004	0.0000	1.1855	1.1855	6.0000e-005	0.0000	1.1867

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1738					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1800e-003	0.0152	0.0165	3.0000e-005		1.0000e-003	1.0000e-003		1.0000e-003	1.0000e-003	0.0000	2.2979	2.2979	1.8000e-004	0.0000	2.3017
Total	0.1760	0.0152	0.0165	3.0000e-005		1.0000e-003	1.0000e-003		1.0000e-003	1.0000e-003	0.0000	2.2979	2.2979	1.8000e-004	0.0000	2.3017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	1.5000e-004	1.5400e-003	0.0000	3.9000e-004	0.0000	4.0000e-004	1.0000e-004	0.0000	1.1000e-004	0.0000	0.3161	0.3161	2.0000e-005	0.0000	0.3164
Total	1.0000e-004	1.5000e-004	1.5400e-003	0.0000	3.9000e-004	0.0000	4.0000e-004	1.0000e-004	0.0000	1.1000e-004	0.0000	0.3161	0.3161	2.0000e-005	0.0000	0.3164

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1738						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.1800e-003	0.0152	0.0165	3.0000e-005		1.0000e-003	1.0000e-003		1.0000e-003	1.0000e-003	0.0000	2.2979	2.2979	1.8000e-004	0.0000	2.3017
Total	0.1760	0.0152	0.0165	3.0000e-005		1.0000e-003	1.0000e-003		1.0000e-003	1.0000e-003	0.0000	2.2979	2.2979	1.8000e-004	0.0000	2.3017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	1.5000e-004	1.5400e-003	0.0000	3.9000e-004	0.0000	4.0000e-004	1.0000e-004	0.0000	1.1000e-004	0.0000	0.3161	0.3161	2.0000e-005	0.0000	0.3164
Total	1.0000e-004	1.5000e-004	1.5400e-003	0.0000	3.9000e-004	0.0000	4.0000e-004	1.0000e-004	0.0000	1.1000e-004	0.0000	0.3161	0.3161	2.0000e-005	0.0000	0.3164

Operational emission data removed because it is not relevant to this analysis.

MtSAC FMPU - Building A Construction (No Demolition)

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	50.00	1000sqft	1.15	50,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	630.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase -

Demolition -

Architectural Coating - Maximum VOC is 75 g/l per Mitigation Monitoring Program

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	75.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	75.00
tblArchitecturalCoating	EF_Residential_Exterior	100.00	75.00
tblConstructionPhase	PhaseEndDate	1/30/2025	1/31/2025
tblConstructionPhase	PhaseStartDate	1/29/2025	1/28/2025
tblProjectCharacteristics	OperationalYear	2014	2025

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					
2025	0.3367	1.2650	1.6362	3.0700e-003	0.0521	0.0485	0.1006	0.0192	0.0464	0.0656	0.0000	248.5760	248.5760	0.0394	0.0000	249.4037
Total	0.3367	1.2650	1.6362	3.0700e-003	0.0521	0.0485	0.1006	0.0192	0.0464	0.0656	0.0000	248.5760	248.5760	0.0394	0.0000	249.4037

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					
2025	0.3367	1.2650	1.6362	3.0700e-003	0.0403	0.0485	0.0888	0.0132	0.0464	0.0596	0.0000	248.5758	248.5758	0.0394	0.0000	249.4034
Total	0.3367	1.2650	1.6362	3.0700e-003	0.0403	0.0485	0.0888	0.0132	0.0464	0.0596	0.0000	248.5758	248.5758	0.0394	0.0000	249.4034

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	22.61	0.00	11.72	31.35	0.00	9.19	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2025	1/28/2025	5	20	
2	Site Preparation	Site Preparation	1/28/2025	1/31/2025	5	2	
3	Grading	Grading	2/1/2025	2/6/2025	5	4	
4	Building Construction	Building Construction	2/7/2025	11/13/2025	5	200	
5	Paving	Paving	11/14/2025	11/27/2025	5	10	
6	Architectural Coating	Architectural Coating	11/28/2025	12/11/2025	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 75,000; Non-Residential Outdoor: 25,000 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	1	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Grading	Graders	1	6.00	174	0.41
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Pavers	1	6.00	125	0.42

Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	1	7.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	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
Demolition	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	21.00	8.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
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	0.0135	0.1234	0.1566	2.5000e-004		5.2600e-003	5.2600e-003		4.9100e-003	4.9100e-003	0.0000	21.4160	21.4160	5.4200e-003	0.0000	21.5299
Total	0.0135	0.1234	0.1566	2.5000e-004	0.0000	5.2600e-003	5.2600e-003	0.0000	4.9100e-003	4.9100e-003	0.0000	21.4160	21.4160	5.4200e-003	0.0000	21.5299

Unmitigated Construction Off-Site

Worker	2.8000e-004	4.0000e-004	4.1900e-003	2.0000e-005	1.4300e-003	1.0000e-005	1.4400e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.0649	1.0649	5.0000e-005	0.0000	1.0658
Total	2.8000e-004	4.0000e-004	4.1900e-003	2.0000e-005	1.4300e-003	1.0000e-005	1.4400e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.0649	1.0649	5.0000e-005	0.0000	1.0658

3.3 Site Preparation - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0116	0.0000	0.0116	5.9100e-003	0.0000	5.9100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.2500e-003	0.0203	0.0224	3.0000e-005		9.7000e-004	9.7000e-004		8.9000e-004	8.9000e-004	0.0000	3.0087	3.0087	9.7000e-004	0.0000	3.0291
Total	2.2500e-003	0.0203	0.0224	3.0000e-005	0.0116	9.7000e-004	0.0126	5.9100e-003	8.9000e-004	6.8000e-003	0.0000	3.0087	3.0087	9.7000e-004	0.0000	3.0291

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	5.0000e-005	5.2000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1311	0.1311	1.0000e-005	0.0000	0.1312
Total	3.0000e-005	5.0000e-005	5.2000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1311	0.1311	1.0000e-005	0.0000	0.1312

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					5.2200e-003	0.0000	5.2200e-003	2.6600e-003	0.0000	2.6600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.2500e-003	0.0203	0.0224	3.0000e-005		9.7000e-004	9.7000e-004		8.9000e-004	8.9000e-004	0.0000	3.0087	3.0087	9.7000e-004	0.0000	3.0291
Total	2.2500e-003	0.0203	0.0224	3.0000e-005	5.2200e-003	9.7000e-004	6.1900e-003	2.6600e-003	8.9000e-004	3.5500e-003	0.0000	3.0087	3.0087	9.7000e-004	0.0000	3.0291

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	5.0000e-005	5.2000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1311	0.1311	1.0000e-005	0.0000	0.1312
Total	3.0000e-005	5.0000e-005	5.2000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1311	0.1311	1.0000e-005	0.0000	0.1312

3.4 Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8400e-003	0.0167	0.0183	3.0000e-005		7.9000e-004	7.9000e-004		7.3000e-004	7.3000e-004	0.0000	2.4716	2.4716	8.0000e-004	0.0000	2.4884
Total	1.8400e-003	0.0167	0.0183	3.0000e-005	9.8300e-003	7.9000e-004	0.0106	5.0500e-003	7.3000e-004	5.7800e-003	0.0000	2.4716	2.4716	8.0000e-004	0.0000	2.4884

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	5.0000e-005	5.2000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1311	0.1311	1.0000e-005	0.0000	0.1312
Total	3.0000e-005	5.0000e-005	5.2000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1311	0.1311	1.0000e-005	0.0000	0.1312

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					4.4200e-003	0.0000	4.4200e-003	2.2700e-003	0.0000	2.2700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8400e-003	0.0167	0.0183	3.0000e-005		7.9000e-004	7.9000e-004		7.3000e-004	7.3000e-004	0.0000	2.4716	2.4716	8.0000e-004	0.0000	2.4884
Total	1.8400e-003	0.0167	0.0183	3.0000e-005	4.4200e-003	7.9000e-004	5.2100e-003	2.2700e-003	7.3000e-004	3.0000e-003	0.0000	2.4716	2.4716	8.0000e-004	0.0000	2.4884

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	5.0000e-005	5.2000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1311	0.1311	1.0000e-005	0.0000	0.1312
Total	3.0000e-005	5.0000e-005	5.2000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1311	0.1311	1.0000e-005	0.0000	0.1312

3.5 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1320	1.0361	1.2411	2.2000e-003		0.0390	0.0390		0.0377	0.0377	0.0000	180.8092	180.8092	0.0294	0.0000	181.4264
Total	0.1320	1.0361	1.2411	2.2000e-003		0.0390	0.0390		0.0377	0.0377	0.0000	180.8092	180.8092	0.0294	0.0000	181.4264

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	4.5900e-003	0.0294	0.0697	1.7000e-004	4.9300e-003	7.5000e-004	5.6700e-003	1.4100e-003	6.9000e-004	2.0900e-003	0.0000	14.5692	14.5692	1.0000e-004	0.0000	14.5713
Worker	4.4900e-003	6.4100e-003	0.0677	2.8000e-004	0.0230	1.8000e-004	0.0232	6.1200e-003	1.7000e-004	6.2900e-003	0.0000	17.2014	17.2014	7.3000e-004	0.0000	17.2167
Total	9.0800e-003	0.0358	0.1374	4.5000e-004	0.0280	9.3000e-004	0.0289	7.5300e-003	8.6000e-004	8.3800e-003	0.0000	31.7705	31.7705	8.3000e-004	0.0000	31.7880

Mitigated Construction On-Site

Total	2.8300e-003	0.0263	0.0434	7.0000e-005		1.2200e-003	1.2200e-003		1.1200e-003	1.1200e-003	0.0000	5.8001	5.8001	1.8400e-003	0.0000	5.8387
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Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	2.0000e-004	2.1000e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	1.0000e-005	1.9000e-004	0.0000	0.5324	0.5324	2.0000e-005	0.0000	0.5329
Total	1.4000e-004	2.0000e-004	2.1000e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	1.0000e-005	1.9000e-004	0.0000	0.5324	0.5324	2.0000e-005	0.0000	0.5329

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.8300e-003	0.0263	0.0434	7.0000e-005		1.2200e-003	1.2200e-003		1.1200e-003	1.1200e-003	0.0000	5.8001	5.8001	1.8400e-003	0.0000	5.8387
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.8300e-003	0.0263	0.0434	7.0000e-005		1.2200e-003	1.2200e-003		1.1200e-003	1.1200e-003	0.0000	5.8001	5.8001	1.8400e-003	0.0000	5.8387

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
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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
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.4000e-004	2.0000e-004	2.1000e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	1.0000e-005	1.9000e-004	0.0000	0.5324	0.5324	2.0000e-005	0.0000	0.5329
Total	1.4000e-004	2.0000e-004	2.1000e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	1.0000e-005	1.9000e-004	0.0000	0.5324	0.5324	2.0000e-005	0.0000	0.5329

3.7 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1738					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.5000e-004	5.7300e-003	9.0500e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2781
Total	0.1747	5.7300e-003	9.0500e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2781

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	6.0000e-005	6.4000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1638	0.1638	1.0000e-005	0.0000	0.1640
Total	4.0000e-005	6.0000e-005	6.4000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1638	0.1638	1.0000e-005	0.0000	0.1640

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1738					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.5000e-004	5.7300e-003	9.0500e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2781
Total	0.1747	5.7300e-003	9.0500e-003	1.0000e-005		2.6000e-004	2.6000e-004		2.6000e-004	2.6000e-004	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2781

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	6.0000e-005	6.4000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1638	0.1638	1.0000e-005	0.0000	0.1640
Total	4.0000e-005	6.0000e-005	6.4000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1638	0.1638	1.0000e-005	0.0000	0.1640

Operational emission data removed because it is irrelevant to this analysis.

MtSAC FMPU Construction for GHG
South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	41.82	1000sqft	0.96	41,818.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	630.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase -

Demolition -

Architectural Coating - Maximum VOC is 75 g/l per Mitigation Monitoring Program

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	75.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	75.00
tblArchitecturalCoating	EF_Residential_Exterior	100.00	75.00
tblProjectCharacteristics	OperationalYear	2014	2025

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													84.8772	0.0189	0.0000	85.2734
Total													84.8772	0.0189	0.0000	85.2734

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													84.8771	0.0189	0.0000	85.2733
Total													84.8771	0.0189	0.0000	85.2733

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2017	1/13/2017	5	10	
2	Site Preparation	Site Preparation	1/14/2017	1/16/2017	5	1	
3	Grading	Grading	1/17/2017	1/18/2017	5	2	
4	Building Construction	Building Construction	1/19/2017	6/7/2017	5	100	
5	Paving	Paving	6/8/2017	6/14/2017	5	5	
6	Architectural Coating	Architectural Coating	6/15/2017	6/21/2017	5	5	

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: 62,727; Non-Residential Outdoor: 20,909 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Demolition	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Grading	Rubber Tired Dozers	1	1.00	255	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	226	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Pavers	1	7.00	125	0.42
Paving	Rollers	1	7.00	80	0.38

Architectural Coating	Air Compressors	1	6.00	78	0.48
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Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	10.00	0.00	166.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	18.00	7.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 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
Off-Road													5.3697	1.0600e-003	0.0000	5.3919
Total													5.3697	1.0600e-003	0.0000	5.3919

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling													5.4983	4.0000e-005	0.0000	5.4991
Vendor													0.0000	0.0000	0.0000	0.0000
Worker													0.4942	3.0000e-005	0.0000	0.4947
Total													5.9925	7.0000e-005	0.0000	5.9939

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
Off-Road													5.3697	1.0600e-003	0.0000	5.3919
Total													5.3697	1.0600e-003	0.0000	5.3919

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling													5.4983	4.0000e-005	0.0000	5.4991
Vendor													0.0000	0.0000	0.0000	0.0000
Worker													0.4942	3.0000e-005	0.0000	0.4947

Total														5.9925	7.0000e-005	0.0000	5.9939
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3.3 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
Off-Road													0.4336	1.3000e-004	0.0000	0.4364
Total													0.4336	1.3000e-004	0.0000	0.4364

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
Vendor													0.0000	0.0000	0.0000	0.0000
Worker													0.0247	0.0000	0.0000	0.0247
Total													0.0247	0.0000	0.0000	0.0247

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
Off-Road													0.4336	1.3000e-004	0.0000	0.4364
Total													0.4336	1.3000e-004	0.0000	0.4364

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
Vendor													0.0000	0.0000	0.0000	0.0000
Worker													0.0247	0.0000	0.0000	0.0247
Total													0.0247	0.0000	0.0000	0.0247

3.4 Grading - 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
Off-Road													1.0739	2.1000e-004	0.0000	1.0784
Total													1.0739	2.1000e-004	0.0000	1.0784

Category	tons/yr										MT/yr			
Hauling											0.0000	0.0000	0.0000	0.0000
Vendor											0.0000	0.0000	0.0000	0.0000
Worker											0.0988	1.0000e-005	0.0000	0.0990
Total											0.0988	1.0000e-005	0.0000	0.0990

3.5 Building Construction - 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					
Off-Road													52.5954	0.0161	0.0000	52.9339
Total													52.5954	0.0161	0.0000	52.9339

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
Vendor													6.7866	5.0000e-005	0.0000	6.7876
Worker													8.8957	4.6000e-004	0.0000	8.9054
Total													15.6823	5.1000e-004	0.0000	15.6929

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road													52.5954	0.0161	0.0000	52.9338
Total													52.5954	0.0161	0.0000	52.9338

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
Vendor													6.7866	5.0000e-005	0.0000	6.7876
Worker													8.8957	4.6000e-004	0.0000	8.9054
Total													15.6823	5.1000e-004	0.0000	15.6929

3.6 Paving - 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
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Category	tons/yr										MT/yr			
Off-Road											2.4243	6.7000e-004	0.0000	2.4384
Paving											0.0000	0.0000	0.0000	0.0000
Total											2.4243	6.7000e-004	0.0000	2.4384

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
Vendor													0.0000	0.0000	0.0000	0.0000
Worker													0.4448	2.0000e-005	0.0000	0.4453
Total													0.4448	2.0000e-005	0.0000	0.4453

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road													2.4243	6.7000e-004	0.0000	2.4384
Paving													0.0000	0.0000	0.0000	0.0000
Total													2.4243	6.7000e-004	0.0000	2.4384

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
Vendor													0.0000	0.0000	0.0000	0.0000
Worker													0.4448	2.0000e-005	0.0000	0.4453
Total													0.4448	2.0000e-005	0.0000	0.4453

3.7 Architectural Coating - 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					
Archit. Coating													0.0000	0.0000	0.0000	0.0000
Off-Road													0.6383	7.0000e-005	0.0000	0.6397
Total													0.6383	7.0000e-005	0.0000	0.6397

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
Vendor														0.0000	0.0000	0.0000	0.0000
Worker														0.0988	1.0000e-005	0.0000	0.0990
Total														0.0988	1.0000e-005	0.0000	0.0990

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating													0.0000	0.0000	0.0000	0.0000
Off-Road													0.6383	7.0000e-005	0.0000	0.6397
Total													0.6383	7.0000e-005	0.0000	0.6397

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
Vendor													0.0000	0.0000	0.0000	0.0000
Worker													0.0988	1.0000e-005	0.0000	0.0990
Total													0.0988	1.0000e-005	0.0000	0.0990

Operational emission data removed because it is not relevant to this analysis.

Mt. SAC FMPU - 2020
South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	39,731.00	Student	39.82	1,734,347.04	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	630.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Headcount data from Iteris.
 Lot acreage from Project Description

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	OperationalYear	2014	2020

2.0 Emissions Summary

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	8.3248	4.7100e-003	0.5103	4.0000e-005		1.8300e-003	1.8300e-003		1.8300e-003	1.8300e-003	0.0000	0.9860	0.9860	2.6400e-003	0.0000	1.0416
Energy	0.2663	2.4204	2.0332	0.0145		0.1840	0.1840		0.1840	0.1840	0.0000	8,173.7870	8,173.7870	0.3051	0.1010	8,211.4992
Mobile	18.4764	52.9962	207.3328	0.6174	41.9806	0.8473	42.8279	11.2346	0.7813	12.0159	0.0000	43,372.1782	43,372.1782	1.5544	0.0000	43,404.8200
Waste						0.0000	0.0000		0.0000	0.0000	1,471.8692	0.0000	1,471.8692	86.9850	0.0000	3,298.5537
Water						0.0000	0.0000		0.0000	0.0000	26.9882	740.0029	766.9910	2.8060	0.0725	848.3879
Total	27.0674	55.4214	209.8763	0.6320	41.9806	1.0330	43.0137	11.2346	0.9671	12.2017	1,498.8574	52,286.9541	53,785.8115	91.6531	0.1735	55,764.3024

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	8.3248	4.7100e-003	0.5103	4.0000e-005		1.8300e-003	1.8300e-003		1.8300e-003	1.8300e-003	0.0000	0.9860	0.9860	2.6400e-003	0.0000	1.0416
Energy	0.2663	2.4204	2.0332	0.0145		0.1840	0.1840		0.1840	0.1840	0.0000	8,173.7870	8,173.7870	0.3051	0.1010	8,211.4992
Mobile	18.4764	52.9962	207.3328	0.6174	41.9806	0.8473	42.8279	11.2346	0.7813	12.0159	0.0000	43,372.1782	43,372.1782	1.5544	0.0000	43,404.8200
Waste						0.0000	0.0000		0.0000	0.0000	1,471.8692	0.0000	1,471.8692	86.9850	0.0000	3,298.5537
Water						0.0000	0.0000		0.0000	0.0000	26.9882	740.0029	766.9910	2.8055	0.0724	848.3448
Total	27.0674	55.4214	209.8763	0.6320	41.9806	1.0330	43.0137	11.2346	0.9671	12.2017	1,498.8574	52,286.9541	53,785.8115	91.6526	0.1734	55,764.2593

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00

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	18.4764	52.9962	207.3328	0.6174	41.9806	0.8473	42.8279	11.2346	0.7813	12.0159	0.0000	43,372.1782	43,372.1782	1.5544	0.0000	43,404.8200
Unmitigated	18.4764	52.9962	207.3328	0.6174	41.9806	0.8473	42.8279	11.2346	0.7813	12.0159	0.0000	43,372.1782	43,372.1782	1.5544	0.0000	43,404.8200

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	47,677.20	16,687.02	1,589.24	110,744,568	110,744,568
Total	47,677.20	16,687.02	1,589.24	110,744,568	110,744,568

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	16.60	8.40	6.90	6.40	88.60	5.00	92	7	1

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.509128	0.059640	0.181069	0.139276	0.042833	0.006726	0.016156	0.033615	0.001941	0.002483	0.004400	0.000574	0.002159

5.0 Energy Detail

4.4 Fleet Mix

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	5,538.8497	5,538.8497	0.2546	0.0527	5,560.5261
Electricity Unmitigated							0.0000	0.0000		0.0000	0.0000	5,538.8497	5,538.8497	0.2546	0.0527	5,560.5261
NaturalGas Mitigated	0.2663	2.4204	2.0332	0.0145		0.1840	0.1840		0.1840	0.1840	0.0000	2,634.9373	2,634.9373	0.0505	0.0483	2,650.9731
NaturalGas Unmitigated	0.2663	2.4204	2.0332	0.0145		0.1840	0.1840		0.1840	0.1840	0.0000	2,634.9373	2,634.9373	0.0505	0.0483	2,650.9731

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)	4.93769e+07	0.2663	2.4204	2.0332	0.0145		0.1840	0.1840		0.1840	0.1840	0.0000	2,634.9373	2,634.9373	0.0505	0.0483	2,650.9731
Total		0.2663	2.4204	2.0332	0.0145		0.1840	0.1840		0.1840	0.1840	0.0000	2,634.9373	2,634.9373	0.0505	0.0483	2,650.9731

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
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Land Use	kBTU/yr	tons/yr										MT/yr					
Junior College (2Yr)	4.93769e+07	0.2663	2.4204	2.0332	0.0145		0.1840	0.1840		0.1840	0.1840	0.0000	2,634.9373	2,634.9373	0.0505	0.0483	2,650.9731
Total		0.2663	2.4204	2.0332	0.0145		0.1840	0.1840		0.1840	0.1840	0.0000	2,634.9373	2,634.9373	0.0505	0.0483	2,650.9731

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	1.93553e+07	5,538.8497	0.2546	0.0527	5,560.5261
Total		5,538.8497	0.2546	0.0527	5,560.5261

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	1.93553e+07	5,538.8497	0.2546	0.0527	5,560.5261
Total		5,538.8497	0.2546	0.0527	5,560.5261

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	8.3248	4.7100e-003	0.5103	4.0000e-005		1.8300e-003	1.8300e-003		1.8300e-003	1.8300e-003	0.0000	0.9860	0.9860	2.6400e-003	0.0000	1.0416
Unmitigated	8.3248	4.7100e-003	0.5103	4.0000e-005		1.8300e-003	1.8300e-003		1.8300e-003	1.8300e-003	0.0000	0.9860	0.9860	2.6400e-003	0.0000	1.0416

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	2.0097					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.2671					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0480	4.7100e-003	0.5103	4.0000e-005		1.8300e-003	1.8300e-003		1.8300e-003	1.8300e-003	0.0000	0.9860	0.9860	2.6400e-003	0.0000	1.0416
Total	8.3248	4.7100e-003	0.5103	4.0000e-005		1.8300e-003	1.8300e-003		1.8300e-003	1.8300e-003	0.0000	0.9860	0.9860	2.6400e-003	0.0000	1.0416

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	2.0097					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.2671					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0480	4.7100e-003	0.5103	4.0000e-005		1.8300e-003	1.8300e-003		1.8300e-003	1.8300e-003	0.0000	0.9860	0.9860	2.6400e-003	1.0416
Total	8.3248	4.7100e-003	0.5103	4.0000e-005		1.8300e-003	1.8300e-003		1.8300e-003	1.8300e-003	0.0000	0.9860	0.9860	2.6400e-003	1.0416

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	766.9910	2.8055	0.0724	848.3448
Unmitigated	766.9910	2.8060	0.0725	848.3879

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	85.068 / 133.055	766.9910	2.8060	0.0725	848.3879
Total		766.9910	2.8060	0.0725	848.3879

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	85.068 / 133.055	766.9910	2.8055	0.0724	848.3448
Total		766.9910	2.8055	0.0724	848.3448

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1,471.8692	86.9850	0.0000	3,298.5537
Unmitigated	1,471.8692	86.9850	0.0000	3,298.5537

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e

Land Use	tons	MT/yr			
Junior College (2Yr)	7250.91	1,471.8692	86.9850	0.0000	3,298.5537
Total		1,471.8692	86.9850	0.0000	3,298.5537

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	7250.91	1,471.8692	86.9850	0.0000	3,298.5537
Total		1,471.8692	86.9850	0.0000	3,298.5537

9.0 Operational Offroad

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

Construction emission data removed because it was not relevant to the analysis.

Mt. SAC FMPU - 2025
 South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	43,139.00	Student	43.23	1,883,113.86	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	630.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Headcount data from Iteris.

Lot acreage from Project Description

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	OperationalYear	2014	2025

2.0 Emissions Summary

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	9.0373	4.9800e-003	0.5491	4.0000e-005		1.9500e-003	1.9500e-003		1.9500e-003	1.9500e-003	0.0000	1.0706	1.0706	2.7800e-003	0.0000	1.1291
Energy	0.2891	2.6281	2.2076	0.0158		0.1997	0.1997		0.1997	0.1997	0.0000	8,874.9087	8,874.9087	0.3313	0.1097	8,915.8557
Mobile	16.6654	40.6778	182.9036	0.6808	45.6102	0.9278	46.5379	12.2085	0.8561	13.0646	0.0000	45,557.1361	45,557.1361	1.4106	0.0000	45,586.7585
Waste						0.0000	0.0000		0.0000	0.0000	1,598.1215	0.0000	1,598.1215	94.4463	0.0000	3,581.4932
Water						0.0000	0.0000		0.0000	0.0000	29.3031	803.4780	832.7811	3.0467	0.0787	921.1599
Total	25.9918	43.3108	185.6603	0.6966	45.6102	1.1294	46.7396	12.2085	1.0578	13.2663	1,627.4246	55,236.5934	56,864.0179	99.2376	0.1884	59,006.3964

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	9.0373	4.9800e-003	0.5491	4.0000e-005		1.9500e-003	1.9500e-003		1.9500e-003	1.9500e-003	0.0000	1.0706	1.0706	2.7800e-003	0.0000	1.1291
Energy	0.2891	2.6281	2.2076	0.0158		0.1997	0.1997		0.1997	0.1997	0.0000	8,874.9087	8,874.9087	0.3313	0.1097	8,915.8557
Mobile	16.6654	40.6778	182.9036	0.6808	45.6102	0.9278	46.5379	12.2085	0.8561	13.0646	0.0000	45,557.1361	45,557.1361	1.4106	0.0000	45,586.7585
Waste						0.0000	0.0000		0.0000	0.0000	1,598.1215	0.0000	1,598.1215	94.4463	0.0000	3,581.4932
Water						0.0000	0.0000		0.0000	0.0000	29.3031	803.4780	832.7811	3.0461	0.0786	921.1132
Total	25.9918	43.3108	185.6603	0.6966	45.6102	1.1294	46.7396	12.2085	1.0578	13.2663	1,627.4246	55,236.5934	56,864.0179	99.2370	0.1882	59,006.3496

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00

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	16.6654	40.6778	182.9036	0.6808	45.6102	0.9278	46.5379	12.2085	0.8561	13.0646	0.0000	45,557.1361	45,557.1361	1.4106	0.0000	45,586.7585
Unmitigated	16.6654	40.6778	182.9036	0.6808	45.6102	0.9278	46.5379	12.2085	0.8561	13.0646	0.0000	45,557.1361	45,557.1361	1.4106	0.0000	45,586.7585

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Junior College (2Yr)	51,766.80	18,118.38	1725.56	120,243,888	120,243,888
Total	51,766.80	18,118.38	1,725.56	120,243,888	120,243,888

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Junior College (2Yr)	16.60	8.40	6.90	6.40	88.60	5.00	92	7	1

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.499131	0.060194	0.182964	0.141782	0.044131	0.007011	0.016488	0.036565	0.002001	0.002519	0.004202	0.000556	0.002456

5.0 Energy Detail

4.4 Fleet Mix

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	6,013.9548	6,013.9548	0.2764	0.0572	6,037.4905
Electricity Unmitigated							0.0000	0.0000		0.0000	0.0000	6,013.9548	6,013.9548	0.2764	0.0572	6,037.4905
NaturalGas Mitigated	0.2891	2.6281	2.2076	0.0158		0.1997	0.1997		0.1997	0.1997	0.0000	2,860.9539	2,860.9539	0.0548	0.0525	2,878.3652
NaturalGas Unmitigated	0.2891	2.6281	2.2076	0.0158		0.1997	0.1997		0.1997	0.1997	0.0000	2,860.9539	2,860.9539	0.0548	0.0525	2,878.3652

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)	5.36123e+07	0.2891	2.6281	2.2076	0.0158		0.1997	0.1997		0.1997	0.1997	0.0000	2,860.9539	2,860.9539	0.0548	0.0525	2,878.3652
Total		0.2891	2.6281	2.2076	0.0158		0.1997	0.1997		0.1997	0.1997	0.0000	2,860.9539	2,860.9539	0.0548	0.0525	2,878.3652

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
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Land Use	kBTU/yr	tons/yr										MT/yr					
Junior College (2Yr)	5.36123e+07	0.2891	2.6281	2.2076	0.0158		0.1997	0.1997		0.1997	0.1997	0.0000	2,860.9539	2,860.9539	0.0548	0.0525	2,878.3652
Total		0.2891	2.6281	2.2076	0.0158		0.1997	0.1997		0.1997	0.1997	0.0000	2,860.9539	2,860.9539	0.0548	0.0525	2,878.3652

5.3 Energy by Land Use - Electricity

Unmitigated

Land Use	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	2.10156e+07	6,013.9548	0.2764	0.0572	6,037.4905
Total		6,013.9548	0.2764	0.0572	6,037.4905

Mitigated

Land Use	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Junior College (2Yr)	2.10156e+07	6,013.9548	0.2764	0.0572	6,037.4905
Total		6,013.9548	0.2764	0.0572	6,037.4905

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	9.0373	4.9800e-003	0.5491	4.0000e-005		1.9500e-003	1.9500e-003		1.9500e-003	1.9500e-003	0.0000	1.0706	1.0706	2.7800e-003	0.0000	1.1291
Unmitigated	9.0373	4.9800e-003	0.5491	4.0000e-005		1.9500e-003	1.9500e-003		1.9500e-003	1.9500e-003	0.0000	1.0706	1.0706	2.7800e-003	0.0000	1.1291

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	2.1821					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	6.8046					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0506	4.9800e-003	0.5491	4.0000e-005		1.9500e-003	1.9500e-003		1.9500e-003	1.9500e-003	0.0000	1.0706	1.0706	2.7800e-003	0.0000	1.1291
Total	9.0372	4.9800e-003	0.5491	4.0000e-005		1.9500e-003	1.9500e-003		1.9500e-003	1.9500e-003	0.0000	1.0706	1.0706	2.7800e-003	0.0000	1.1291

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	2.1821					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Consumer Products	6.8046					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Landscaping	0.0506	4.9800e-003	0.5491	4.0000e-005		1.9500e-003	1.9500e-003		1.9500e-003	1.9500e-003	0.0000	1.0706	1.0706	2.7800e-003	0.0000	1.1291
Total	9.0372	4.9800e-003	0.5491	4.0000e-005		1.9500e-003	1.9500e-003		1.9500e-003	1.9500e-003	0.0000	1.0706	1.0706	2.7800e-003	0.0000	1.1291

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	832.7811	3.0461	0.0786	921.1132
Unmitigated	832.7811	3.0467	0.0787	921.1599

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	92.3649 / 144.468	832.7811	3.0467	0.0787	921.1599
Total		832.7811	3.0467	0.0787	921.1599

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Junior College (2Yr)	92.3649 / 144.468	832.7811	3.0461	0.0786	921.1132
Total		832.7811	3.0461	0.0786	921.1132

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1,598.1215	94.4463	0.0000	3,581.4932
Unmitigated	1,598.1215	94.4463	0.0000	3,581.4932

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
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Land Use	tons	MT/yr			
Junior College (2Yr)	7872.87	1,598.1215	94.4463	0.0000	3,581.4932
Total		1,598.1215	94.4463	0.0000	3,581.4932

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Junior College (2Yr)	7872.87	1,598.1215	94.4463	0.0000	3,581.4932
Total		1,598.1215	94.4463	0.0000	3,581.4932

9.0 Operational Offroad

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

Construction emission data removed because it is not relevant to this analysis.

Physical Education Projects-- Phase 1 -- Construction Only
South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	91.73	1000sqft	2.11	91,730.00	0
General Light Industry	79.40	1000sqft	1.82	79,400.00	0
Other Non-Asphalt Surfaces	174.43	1000sqft	4.00	174,430.00	0
Parking Lot	107.57	1000sqft	2.47	107,570.00	0
City Park	21.80	Acre	21.80	949,608.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2019
Utility Company	Southern California Edison				
CO2 Intensity (lb/MW hr)	630.89	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - This has updated painting information from Matt Breyer dated March 3, 2016.

Land Use -

Construction Phase - Demolition duration based on Tilden Coil schedule
 Site Prep plus Grading equals 45 days based on Tilden Coil schedule
 Construction phase roughly based on Tilden Coil schedule and end date of construction and paint info dates March 3, 2016

Trips and VMT - Demolition is 9800 cy, total export of dirt during grading 81429 cy, and concrete import is 15,800 cy

Demolition -

Grading - Entire site will essentially be re-graded

Architectural Coating - Default values based on requirements of Mitigation Monitoring Program and paint info dated March 3, 2016.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Construction Off-road Equipment Mitigation - Tier 4 required for grading mitigation for NOx control

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	649,198.00	9,000.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	1,947,593.00	151,650.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	75.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	75.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	35.00	58.00
tblConstructionPhase	NumDays	500.00	381.00
tblConstructionPhase	NumDays	30.00	56.00
tblConstructionPhase	NumDays	45.00	40.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00

tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	PhaseEndDate	12/12/2016	12/24/2016
tblConstructionPhase	PhaseStartDate	12/25/2016	12/26/2016
tblConstructionPhase	PhaseStartDate	12/7/2016	12/20/2016
tblGrading	AcresOfGrading	100.00	112.50
tblGrading	MaterialImported	0.00	81,429.00
tblProjectCharacteristics	OperationalYear	2014	2019
tblTripsAndVMT	HaulingTripNumber	0.00	1,580.00

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					
2016	0.1853	2.1465	1.6442	2.7600e-003	0.5338	0.0899	0.6238	0.1538	0.0835	0.2373	0.0000	253.4344	253.4344	0.0374	0.0000	254.2204
2017	1.1723	9.2147	12.4228	0.0264	1.3801	0.3716	1.7517	0.3952	0.3466	0.7419	0.0000	2,187.4919	2,187.4919	0.1605	0.0000	2,190.8622
2018	0.6601	2.6655	4.2104	9.1600e-003	0.4573	0.1158	0.5730	0.1228	0.1084	0.2312	0.0000	728.4072	728.4072	0.0595	0.0000	729.6567
Total	2.0177	14.0266	18.2774	0.0383	2.3712	0.5773	2.9486	0.6718	0.5386	1.2104	0.0000	3,169.3336	3,169.3336	0.2574	0.0000	3,174.7393

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					
2016	0.0662	0.7014	1.2354	2.7600e-003	0.2906	0.0194	0.3100	0.0821	0.0188	0.1009	0.0000	253.4343	253.4343	0.0374	0.0000	254.2202
2017	0.9797	7.0368	12.1995	0.0264	1.2786	0.2352	1.5138	0.3549	0.2215	0.5764	0.0000	2,187.4914	2,187.4914	0.1605	0.0000	2,190.8617
2018	0.6292	2.3322	4.2111	9.1600e-003	0.4573	0.0913	0.5485	0.1228	0.0860	0.2087	0.0000	728.4070	728.4070	0.0595	0.0000	729.6565
Total	1.6752	10.0704	17.6460	0.0383	2.0264	0.3459	2.3723	0.5598	0.3262	0.8859	0.0000	3,169.3327	3,169.3327	0.2574	0.0000	3,174.7384

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	16.98	28.21	3.45	0.00	14.54	40.09	19.54	16.67	39.44	26.80	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/3/2016	12/6/2016	6	56	
2	Site Preparation	Site Preparation	12/20/2016	12/24/2016	6	5	
3	Grading	Grading	12/26/2016	2/9/2017	6	40	
4	Building Construction	Building Construction	2/10/2017	4/30/2018	6	381	
5	Paving	Paving	5/1/2018	6/9/2018	6	35	
6	Architectural Coating	Architectural Coating	6/10/2018	8/16/2018	6	58	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 151,650; Non-Residential Outdoor: 9,000 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	1,962.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Worker	1.6900e-003	2.4800e-003	0.0258	6.0000e-005	4.6100e-003	4.0000e-005	4.6500e-003	1.2200e-003	4.0000e-005	1.2600e-003	0.0000	4.3171	4.3171	2.3000e-004	0.0000	4.3220
Total	0.0192	0.2859	0.2400	7.8000e-004	0.0214	4.3100e-003	0.0257	5.8300e-003	3.9700e-003	9.8000e-003	0.0000	70.3877	70.3877	7.0000e-004	0.0000	70.4025

3.3 Site Preparation - 2016

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					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1366	0.1028	1.0000e-004		7.3500e-003	7.3500e-003		6.7600e-003	6.7600e-003	0.0000	9.2193	9.2193	2.7800e-003	0.0000	9.2777
Total	0.0127	0.1366	0.1028	1.0000e-004	0.0452	7.3500e-003	0.0525	0.0248	6.7600e-003	0.0316	0.0000	9.2193	9.2193	2.7800e-003	0.0000	9.2777

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	2.7000e-004	2.7600e-003	1.0000e-005	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4625	0.4625	2.0000e-005	0.0000	0.4631
Total	1.8000e-004	2.7000e-004	2.7600e-003	1.0000e-005	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4625	0.4625	2.0000e-005	0.0000	0.4631

Category	tons/yr										MT/yr					
Fugitive Dust					0.1847	0.0000	0.1847	0.0733	0.0000	0.0733	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2244	0.1474	1.9000e-004		0.0108	0.0108		9.8900e-003	9.8900e-003	0.0000	17.4587	17.4587	5.2700e-003	0.0000	17.5693
Total	0.0194	0.2244	0.1474	1.9000e-004	0.1847	0.0108	0.1955	0.0733	9.8900e-003	0.0832	0.0000	17.4587	17.4587	5.2700e-003	0.0000	17.5693

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	0.0136	0.2206	0.1667	5.6000e-004	0.0691	3.3300e-003	0.0724	0.0173	3.0600e-003	0.0204	0.0000	51.4169	51.4169	3.7000e-004	0.0000	51.4246
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	3.5000e-004	3.6800e-003	1.0000e-005	6.6000e-004	1.0000e-005	6.6000e-004	1.7000e-004	1.0000e-005	1.8000e-004	0.0000	0.6167	0.6167	3.0000e-005	0.0000	0.6174
Total	0.0138	0.2209	0.1704	5.7000e-004	0.0697	3.3400e-003	0.0731	0.0175	3.0700e-003	0.0206	0.0000	52.0336	52.0336	4.0000e-004	0.0000	52.0420

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					0.0831	0.0000	0.0831	0.0330	0.0000	0.0330	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.2700e-003	9.8300e-003	0.1043	1.9000e-004		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	17.4587	17.4587	5.2700e-003	0.0000	17.5693

Total	2.2700e-003	9.8300e-003	0.1043	1.9000e-004	0.0831	3.0000e-004	0.0834	0.0330	3.0000e-004	0.0333	0.0000	17.4587	17.4587	5.2700e-003	0.0000	17.5693
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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	0.0136	0.2206	0.1667	5.6000e-004	0.0691	3.3300e-003	0.0724	0.0173	3.0600e-003	0.0204	0.0000	51.4169	51.4169	3.7000e-004	0.0000	51.4246
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	3.5000e-004	3.6800e-003	1.0000e-005	6.6000e-004	1.0000e-005	6.6000e-004	1.7000e-004	1.0000e-005	1.8000e-004	0.0000	0.6167	0.6167	3.0000e-005	0.0000	0.6174
Total	0.0138	0.2209	0.1704	5.7000e-004	0.0697	3.3400e-003	0.0731	0.0175	3.0700e-003	0.0206	0.0000	52.0336	52.0336	4.0000e-004	0.0000	52.0420

3.4 Grading - 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					0.1847	0.0000	0.1847	0.0733	0.0000	0.0733	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1037	1.1831	0.7957	1.0500e-003		0.0564	0.0564		0.0519	0.0519	0.0000	97.3657	97.3657	0.0298	0.0000	97.9922
Total	0.1037	1.1831	0.7957	1.0500e-003	0.1847	0.0564	0.2411	0.0733	0.0519	0.1252	0.0000	97.3657	97.3657	0.0298	0.0000	97.9922

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	0.0726	1.1455	0.9108	3.1800e-003	0.0841	0.0172	0.1013	0.0228	0.0158	0.0386	0.0000	286.5791	286.5791	2.0400e-003	0.0000	286.6219
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	1.8100e-003	0.0188	5.0000e-005	3.7300e-003	3.0000e-005	3.7600e-003	9.9000e-004	3.0000e-005	1.0200e-003	0.0000	3.3606	3.3606	1.7000e-004	0.0000	3.3642
Total	0.0738	1.1474	0.9296	3.2300e-003	0.0878	0.0173	0.1050	0.0238	0.0159	0.0396	0.0000	289.9397	289.9397	2.2100e-003	0.0000	289.9862

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					0.0831	0.0000	0.0831	0.0330	0.0000	0.0330	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0129	0.0557	0.5912	1.0500e-003		1.7100e-003	1.7100e-003		1.7100e-003	1.7100e-003	0.0000	97.3656	97.3656	0.0298	0.0000	97.9920
Total	0.0129	0.0557	0.5912	1.0500e-003	0.0831	1.7100e-003	0.0848	0.0330	1.7100e-003	0.0347	0.0000	97.3656	97.3656	0.0298	0.0000	97.9920

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
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Category	tons/yr										MT/yr					
	Hauling	0.0726	1.1455	0.9108	3.1800e-003	0.0841	0.0172	0.1013	0.0228	0.0158	0.0386	0.0000	286.5791	286.5791	2.0400e-003	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	1.8100e-003	0.0188	5.0000e-005	3.7300e-003	3.0000e-005	3.7600e-003	9.9000e-004	3.0000e-005	1.0200e-003	0.0000	3.3606	3.3606	1.7000e-004	0.0000	3.3642
Total	0.0738	1.1474	0.9296	3.2300e-003	0.0878	0.0173	0.1050	0.0238	0.0159	0.0396	0.0000	289.9397	289.9397	2.2100e-003	0.0000	289.9862

3.5 Building Construction - 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					
Off-Road	0.4312	3.6704	2.5200	3.7300e-003		0.2476	0.2476		0.2325	0.2325	0.0000	332.8760	332.8760	0.0819	0.0000	334.5964
Total	0.4312	3.6704	2.5200	3.7300e-003		0.2476	0.2476		0.2325	0.2325	0.0000	332.8760	332.8760	0.0819	0.0000	334.5964

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	9.6700e-003	0.1526	0.1214	4.2000e-004	0.0127	2.2900e-003	0.0149	3.3900e-003	2.1100e-003	5.5000e-003	0.0000	38.1854	38.1854	2.7000e-004	0.0000	38.1911
Vendor	0.2593	2.6249	3.5258	6.9300e-003	0.1968	0.0407	0.2375	0.0562	0.0375	0.0936	0.0000	619.9038	619.9038	4.4200e-003	0.0000	619.9966

Worker	0.2947	0.4364	4.5304	0.0110	0.8982	7.3600e-003	0.9056	0.2386	6.7900e-003	0.2453	0.0000	809.2214	809.2214	0.0418	0.0000	810.0997
Total	0.5636	3.2139	8.1776	0.0184	1.1077	0.0504	1.1580	0.2981	0.0464	0.3445	0.0000	1,467.3106	1,467.3106	0.0465	0.0000	1,468.2875

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3295	2.6198	2.5011	3.7300e-003		0.1659	0.1659		0.1576	0.1576	0.0000	332.8756	332.8756	0.0819	0.0000	334.5960
Total	0.3295	2.6198	2.5011	3.7300e-003		0.1659	0.1659		0.1576	0.1576	0.0000	332.8756	332.8756	0.0819	0.0000	334.5960

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	9.6700e-003	0.1526	0.1214	4.2000e-004	0.0127	2.2900e-003	0.0149	3.3900e-003	2.1100e-003	5.5000e-003	0.0000	38.1854	38.1854	2.7000e-004	0.0000	38.1911
Vendor	0.2593	2.6249	3.5258	6.9300e-003	0.1968	0.0407	0.2375	0.0562	0.0375	0.0936	0.0000	619.9038	619.9038	4.4200e-003	0.0000	619.9966
Worker	0.2947	0.4364	4.5304	0.0110	0.8982	7.3600e-003	0.9056	0.2386	6.7900e-003	0.2453	0.0000	809.2214	809.2214	0.0418	0.0000	810.0997
Total	0.5636	3.2139	8.1776	0.0184	1.1077	0.0504	1.1580	0.2981	0.0464	0.3445	0.0000	1,467.3106	1,467.3106	0.0465	0.0000	1,468.2875

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1374	1.1979	0.9029	1.3800e-003		0.0770	0.0770		0.0724	0.0724	0.0000	121.9364	121.9364	0.0298	0.0000	122.5630
Total	0.1374	1.1979	0.9029	1.3800e-003		0.0770	0.0770		0.0724	0.0724	0.0000	121.9364	121.9364	0.0298	0.0000	122.5630

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	3.4900e-003	0.0525	0.0440	1.6000e-004	0.0111	8.5000e-004	0.0120	2.8400e-003	7.8000e-004	3.6200e-003	0.0000	13.9128	13.9128	1.0000e-004	0.0000	13.9149
Vendor	0.0898	0.8921	1.2515	2.5600e-003	0.0729	0.0142	0.0871	0.0208	0.0131	0.0339	0.0000	225.8208	225.8208	1.6300e-003	0.0000	225.8550
Worker	0.0980	0.1466	1.5199	4.0900e-003	0.3328	2.6500e-003	0.3355	0.0884	2.4600e-003	0.0908	0.0000	288.6288	288.6288	0.0144	0.0000	288.9309
Total	0.1914	1.0912	2.8154	6.8100e-003	0.4168	0.0177	0.4345	0.1120	0.0163	0.1284	0.0000	528.3624	528.3624	0.0161	0.0000	528.7007

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
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Total	0.0314	0.3004	0.2537	3.9000e-004		0.0164	0.0164		0.0151	0.0151	0.0000	35.6453	35.6453	0.0111	0.0000	35.8783
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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	8.5000e-004	1.2700e-003	0.0132	4.0000e-005	2.8800e-003	2.0000e-005	2.9000e-003	7.6000e-004	2.0000e-005	7.9000e-004	0.0000	2.4977	2.4977	1.2000e-004	0.0000	2.5004
Total	8.5000e-004	1.2700e-003	0.0132	4.0000e-005	2.8800e-003	2.0000e-005	2.9000e-003	7.6000e-004	2.0000e-005	7.9000e-004	0.0000	2.4977	2.4977	1.2000e-004	0.0000	2.5004

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0282	0.3004	0.2537	3.9000e-004		0.0164	0.0164		0.0151	0.0151	0.0000	35.6453	35.6453	0.0111	0.0000	35.8783
Paving	3.2400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0314	0.3004	0.2537	3.9000e-004		0.0164	0.0164		0.0151	0.0151	0.0000	35.6453	35.6453	0.0111	0.0000	35.8783

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	8.5000e-004	1.2700e-003	0.0132	4.0000e-005	2.8800e-003	2.0000e-005	2.9000e-003	7.6000e-004	2.0000e-005	7.9000e-004	0.0000	2.4977	2.4977	1.2000e-004	0.0000	2.5004
Total	8.5000e-004	1.2700e-003	0.0132	4.0000e-005	2.8800e-003	2.0000e-005	2.9000e-003	7.6000e-004	2.0000e-005	7.9000e-004	0.0000	2.4977	2.4977	1.2000e-004	0.0000	2.5004

3.7 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2792					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.6600e-003	0.0582	0.0538	9.0000e-005		4.3700e-003	4.3700e-003		4.3700e-003	4.3700e-003	0.0000	7.4045	7.4045	7.0000e-004	0.0000	7.4192
Total	0.2879	0.0582	0.0538	9.0000e-005		4.3700e-003	4.3700e-003		4.3700e-003	4.3700e-003	0.0000	7.4045	7.4045	7.0000e-004	0.0000	7.4192

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
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Worker	0.0111	0.0165	0.1715	4.6000e-004	0.0375	3.0000e-004	0.0378	9.9700e-003	2.8000e-004	0.0103	0.0000	32.5610	32.5610	1.6200e-003	0.0000	32.5950
Total	0.0111	0.0165	0.1715	4.6000e-004	0.0375	3.0000e-004	0.0378	9.9700e-003	2.8000e-004	0.0103	0.0000	32.5610	32.5610	1.6200e-003	0.0000	32.5950

Physical Education Projects-- Phase 2 -- Construction Only
South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Junior College (2Yr)	117.90	1000sqft	2.71	117,900.00	0
Enclosed Parking Structure	23.09	1000sqft	0.53	23,088.00	0
Other Non-Asphalt Surfaces	68.81	1000sqft	1.58	68,805.00	0
Parking Lot	0.00	1000sqft	0.00	0.00	0
City Park	0.00	Acre	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	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 of enclosed parking structure used to simulate pool areas.

Non-asphalt parking used to simulate construction of tennis courts.

Construction Phase - Painting consistent with March 3, 2016 info.

Trips and VMT -

Demolition -

Grading -

Architectural Coating - Painting consistent with March 3, 2016 info.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	104,897.00	13,644.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	314,690.00	229,901.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	75.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	75.00
tblConstructionPhase	NumDays	18.00	88.00
tblConstructionPhase	NumDays	230.00	535.00
tblConstructionPhase	PhaseEndDate	9/1/2020	9/28/2020
tblConstructionPhase	PhaseStartDate	8/5/2020	9/1/2020
tblLandUse	LandUseSquareFeet	23,090.00	23,088.00
tblLandUse	LandUseSquareFeet	68,810.00	68,805.00
tblProjectCharacteristics	OperationalYear	2014	2021

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					
2018	0.3843	3.1916	3.0644	5.4100e-003	0.2047	0.1864	0.3911	0.0742	0.1748	0.2490	0.0000	454.2840	454.2840	0.0766	0.0000	455.8930
2019	0.3728	3.0949	3.2147	6.0000e-003	0.1533	0.1737	0.3270	0.0413	0.1632	0.2045	0.0000	493.5893	493.5893	0.0800	0.0000	495.2699

2020	0.5805	1.5275	1.6155	3.7900e-003	0.6198	0.0637	0.6836	0.1039	0.0598	0.1636	0.0000	315.9894	315.9894	0.0318	0.0000	316.6568
Total	1.3376	7.8139	7.8947	0.0152	0.9778	0.4239	1.4017	0.2193	0.3978	0.6171	0.0000	1,263.8627	1,263.8627	0.1884	0.0000	1,267.8197

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					
2018	0.3843	3.1916	3.0644	5.4100e-003	0.1654	0.1864	0.3518	0.0531	0.1748	0.2280	0.0000	454.2837	454.2837	0.0766	0.0000	455.8927
2019	0.3728	3.0949	3.2147	6.0000e-003	0.1533	0.1737	0.3270	0.0413	0.1632	0.2045	0.0000	493.5889	493.5889	0.0800	0.0000	495.2696
2020	0.5805	1.5275	1.6155	3.7900e-003	0.3249	0.0637	0.3887	0.0592	0.0598	0.1190	0.0000	315.9892	315.9892	0.0318	0.0000	316.6566
Total	1.3376	7.8139	7.8947	0.0152	0.6437	0.4239	1.0675	0.1536	0.3978	0.5514	0.0000	1,263.8618	1,263.8618	0.1884	0.0000	1,267.8188

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	34.18	0.00	23.84	29.97	0.00	10.65	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	2/1/2018	2/7/2018	5	5	
2	Grading	Grading	2/8/2018	2/19/2018	5	8	
3	Building Construction	Building Construction	2/20/2018	3/9/2020	5	535	

4	Paving	Paving	3/10/2020	4/2/2020	5	18
5	Architectural Coating	Architectural Coating	4/3/2020	8/4/2020	5	88
6	Demolition	Demolition	9/1/2020	9/28/2020	5	20

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 229,901; Non-Residential Outdoor: 13,644 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	162	0.38
Demolition	Rubber Tired Dozers	2	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	125	0.42
Paving	Paving Equipment	2	6.00	130	0.36

Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	4,956.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	88.00	34.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2018

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					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0107	0.1140	0.0906	1.0000e-004		5.9100e-003	5.9100e-003		5.4400e-003	5.4400e-003	0.0000	8.9353	8.9353	2.7800e-003	0.0000	8.9937

Total	0.0107	0.1140	0.0906	1.0000e-004	0.0452	5.9100e-003	0.0511	0.0248	5.4400e-003	0.0303	0.0000	8.9353	8.9353	2.7800e-003	0.0000	8.9937
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Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	2.2000e-004	2.2500e-003	1.0000e-005	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4282	0.4282	2.0000e-005	0.0000	0.4286
Total	1.5000e-004	2.2000e-004	2.2500e-003	1.0000e-005	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4282	0.4282	2.0000e-005	0.0000	0.4286

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					0.0203	0.0000	0.0203	0.0112	0.0000	0.0112	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0107	0.1140	0.0906	1.0000e-004		5.9100e-003	5.9100e-003		5.4400e-003	5.4400e-003	0.0000	8.9352	8.9352	2.7800e-003	0.0000	8.9937
Total	0.0107	0.1140	0.0906	1.0000e-004	0.0203	5.9100e-003	0.0262	0.0112	5.4400e-003	0.0166	0.0000	8.9352	8.9352	2.7800e-003	0.0000	8.9937

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	2.2000e-004	2.2500e-003	1.0000e-005	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4282	0.4282	2.0000e-005	0.0000	0.4286
Total	1.5000e-004	2.2000e-004	2.2500e-003	1.0000e-005	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4282	0.4282	2.0000e-005	0.0000	0.4286

3.3 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0262	0.0000	0.0262	0.0135	0.0000	0.0135	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0120	0.1243	0.0960	1.2000e-004		6.8800e-003	6.8800e-003		6.3300e-003	6.3300e-003	0.0000	10.8612	10.8612	3.3800e-003	0.0000	10.9322
Total	0.0120	0.1243	0.0960	1.2000e-004	0.0262	6.8800e-003	0.0331	0.0135	6.3300e-003	0.0198	0.0000	10.8612	10.8612	3.3800e-003	0.0000	10.9322

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	2.9000e-004	3.0100e-003	1.0000e-005	6.6000e-004	1.0000e-005	6.6000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5709	0.5709	3.0000e-005	0.0000	0.5715
Total	1.9000e-004	2.9000e-004	3.0100e-003	1.0000e-005	6.6000e-004	1.0000e-005	6.6000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5709	0.5709	3.0000e-005	0.0000	0.5715

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					0.0118	0.0000	0.0118	6.0600e-003	0.0000	6.0600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0120	0.1243	0.0960	1.2000e-004		6.8800e-003	6.8800e-003		6.3300e-003	6.3300e-003	0.0000	10.8612	10.8612	3.3800e-003	0.0000	10.9322
Total	0.0120	0.1243	0.0960	1.2000e-004	0.0118	6.8800e-003	0.0187	6.0600e-003	6.3300e-003	0.0124	0.0000	10.8612	10.8612	3.3800e-003	0.0000	10.9322

Mitigated Construction Off-Site

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	2.9000e-004	3.0100e-003	1.0000e-005	6.6000e-004	1.0000e-005	6.6000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5709	0.5709	3.0000e-005	0.0000	0.5715
Total	1.9000e-004	2.9000e-004	3.0100e-003	1.0000e-005	6.6000e-004	1.0000e-005	6.6000e-004	1.7000e-004	0.0000	1.8000e-004	0.0000	0.5709	0.5709	3.0000e-005	0.0000	0.5715

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3002	2.6168	1.9724	3.0200e-003		0.1681	0.1681		0.1580	0.1580	0.0000	266.3659	266.3659	0.0652	0.0000	267.7348
Total	0.3002	2.6168	1.9724	3.0200e-003		0.1681	0.1681		0.1580	0.1580	0.0000	266.3659	266.3659	0.0652	0.0000	267.7348

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	0.0290	0.2881	0.4041	8.3000e-004	0.0235	4.5900e-003	0.0281	6.7200e-003	4.2200e-003	0.0109	0.0000	72.9223	72.9223	5.3000e-004	0.0000	72.9333

Worker	0.0320	0.0479	0.4960	1.3300e-003	0.1086	8.7000e-004	0.1095	0.0289	8.0000e-004	0.0297	0.0000	94.2003	94.2003	4.6900e-003	0.0000	94.2989
Total	0.0610	0.3359	0.9002	2.1600e-003	0.1322	5.4600e-003	0.1376	0.0356	5.0200e-003	0.0406	0.0000	167.1226	167.1226	5.2200e-003	0.0000	167.2322

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3002	2.6168	1.9724	3.0200e-003		0.1681	0.1681		0.1580	0.1580	0.0000	266.3656	266.3656	0.0652	0.0000	267.7345
Total	0.3002	2.6168	1.9724	3.0200e-003		0.1681	0.1681		0.1580	0.1580	0.0000	266.3656	266.3656	0.0652	0.0000	267.7345

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	0.0290	0.2881	0.4041	8.3000e-004	0.0235	4.5900e-003	0.0281	6.7200e-003	4.2200e-003	0.0109	0.0000	72.9223	72.9223	5.3000e-004	0.0000	72.9333
Worker	0.0320	0.0479	0.4960	1.3300e-003	0.1086	8.7000e-004	0.1095	0.0289	8.0000e-004	0.0297	0.0000	94.2003	94.2003	4.6900e-003	0.0000	94.2989
Total	0.0610	0.3359	0.9002	2.1600e-003	0.1322	5.4600e-003	0.1376	0.0356	5.0200e-003	0.0406	0.0000	167.1226	167.1226	5.2200e-003	0.0000	167.2322

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3069	2.7359	2.2342	3.5000e-003		0.1677	0.1677		0.1577	0.1577	0.0000	305.5302	305.5302	0.0743	0.0000	307.0913
Total	0.3069	2.7359	2.2342	3.5000e-003		0.1677	0.1677		0.1577	0.1577	0.0000	305.5302	305.5302	0.0743	0.0000	307.0913

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	0.0318	0.3080	0.4529	9.6000e-004	0.0273	5.0500e-003	0.0324	7.8000e-003	4.6500e-003	0.0124	0.0000	82.9452	82.9452	6.0000e-004	0.0000	82.9578
Worker	0.0341	0.0509	0.5277	1.5400e-003	0.1260	9.9000e-004	0.1270	0.0335	9.1000e-004	0.0344	0.0000	105.1138	105.1138	5.1000e-003	0.0000	105.2209
Total	0.0659	0.3589	0.9805	2.5000e-003	0.1533	6.0400e-003	0.1593	0.0413	5.5600e-003	0.0468	0.0000	188.0591	188.0591	5.7000e-003	0.0000	188.1786

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3069	2.7359	2.2342	3.5000e-003		0.1677	0.1677		0.1577	0.1577	0.0000	305.5299	305.5299	0.0743	0.0000	307.0909
Total	0.3069	2.7359	2.2342	3.5000e-003		0.1677	0.1677		0.1577	0.1577	0.0000	305.5299	305.5299	0.0743	0.0000	307.0909

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	0.0318	0.3080	0.4529	9.6000e-004	0.0273	5.0500e-003	0.0324	7.8000e-003	4.6500e-003	0.0124	0.0000	82.9452	82.9452	6.0000e-004	0.0000	82.9578
Worker	0.0341	0.0509	0.5277	1.5400e-003	0.1260	9.9000e-004	0.1270	0.0335	9.1000e-004	0.0344	0.0000	105.1138	105.1138	5.1000e-003	0.0000	105.2209
Total	0.0659	0.3589	0.9805	2.5000e-003	0.1533	6.0400e-003	0.1593	0.0413	5.5600e-003	0.0468	0.0000	188.0591	188.0591	5.7000e-003	0.0000	188.1786

3.4 Building Construction - 2020

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
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Category	tons/yr										MT/yr					
Off-Road	0.0517	0.4676	0.4118	6.6000e-004		0.0273	0.0273		0.0256	0.0256	0.0000	56.5092	56.5092	0.0138	0.0000	56.7983
Total	0.0517	0.4676	0.4118	6.6000e-004		0.0273	0.0273		0.0256	0.0256	0.0000	56.5092	56.5092	0.0138	0.0000	56.7983

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.6600e-003	0.0504	0.0825	1.8000e-004	5.1300e-003	8.7000e-004	6.0000e-003	1.4600e-003	8.0000e-004	2.2600e-003	0.0000	15.2213	15.2213	1.1000e-004	0.0000	15.2237
Worker	5.9900e-003	8.8600e-003	0.0922	2.9000e-004	0.0237	1.8000e-004	0.0238	6.2800e-003	1.7000e-004	6.4500e-003	0.0000	18.9324	18.9324	9.1000e-004	0.0000	18.9514
Total	0.0117	0.0593	0.1746	4.7000e-004	0.0288	1.0500e-003	0.0298	7.7400e-003	9.7000e-004	8.7100e-003	0.0000	34.1538	34.1538	1.0200e-003	0.0000	34.1751

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0517	0.4676	0.4118	6.6000e-004		0.0273	0.0273		0.0256	0.0256	0.0000	56.5092	56.5092	0.0138	0.0000	56.7983

Total	0.0517	0.4676	0.4118	6.6000e-004		0.0273	0.0273		0.0256	0.0256	0.0000	56.5092	56.5092	0.0138	0.0000	56.7983
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Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.6600e-003	0.0504	0.0825	1.8000e-004	5.1300e-003	8.7000e-004	6.0000e-003	1.4600e-003	8.0000e-004	2.2600e-003	0.0000	15.2213	15.2213	1.1000e-004	0.0000	15.2237
Worker	5.9900e-003	8.8600e-003	0.0922	2.9000e-004	0.0237	1.8000e-004	0.0238	6.2800e-003	1.7000e-004	6.4500e-003	0.0000	18.9324	18.9324	9.1000e-004	0.0000	18.9514
Total	0.0117	0.0593	0.1746	4.7000e-004	0.0288	1.0500e-003	0.0298	7.7400e-003	9.7000e-004	8.7100e-003	0.0000	34.1538	34.1538	1.0200e-003	0.0000	34.1751

3.5 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0105	0.1048	0.1090	1.7000e-004		5.7900e-003	5.7900e-003		5.3400e-003	5.3400e-003	0.0000	14.5187	14.5187	4.5600e-003	0.0000	14.6144
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0105	0.1048	0.1090	1.7000e-004		5.7900e-003	5.7900e-003		5.3400e-003	5.3400e-003	0.0000	14.5187	14.5187	4.5600e-003	0.0000	14.6144

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	7.4000e-004	7.7000e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.5806	1.5806	8.0000e-005	0.0000	1.5822
Total	5.0000e-004	7.4000e-004	7.7000e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.5806	1.5806	8.0000e-005	0.0000	1.5822

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0105	0.1048	0.1090	1.7000e-004		5.7900e-003	5.7900e-003		5.3400e-003	5.3400e-003	0.0000	14.5186	14.5186	4.5600e-003	0.0000	14.6144
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0105	0.1048	0.1090	1.7000e-004		5.7900e-003	5.7900e-003		5.3400e-003	5.3400e-003	0.0000	14.5186	14.5186	4.5600e-003	0.0000	14.6144

Mitigated Construction Off-Site

Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-003	3.2500e-003	0.0339	1.1000e-004	8.6900e-003	7.0000e-005	8.7600e-003	2.3100e-003	6.0000e-005	2.3700e-003	0.0000	6.9548	6.9548	3.3000e-004	0.0000	6.9618
Total	2.2000e-003	3.2500e-003	0.0339	1.1000e-004	8.6900e-003	7.0000e-005	8.7600e-003	2.3100e-003	6.0000e-005	2.3700e-003	0.0000	6.9548	6.9548	3.3000e-004	0.0000	6.9618

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.4233					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0107	0.0741	0.0806	1.3000e-004		4.8800e-003	4.8800e-003		4.8800e-003	4.8800e-003	0.0000	11.2343	11.2343	8.7000e-004	0.0000	11.2526
Total	0.4340	0.0741	0.0806	1.3000e-004		4.8800e-003	4.8800e-003		4.8800e-003	4.8800e-003	0.0000	11.2343	11.2343	8.7000e-004	0.0000	11.2526

Mitigated Construction Off-Site

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

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-003	3.2500e-003	0.0339	1.1000e-004	8.6900e-003	7.0000e-005	8.7600e-003	2.3100e-003	6.0000e-005	2.3700e-003	0.0000	6.9548	6.9548	3.3000e-004	0.0000	6.9618
Total	2.2000e-003	3.2500e-003	0.0339	1.1000e-004	8.6900e-003	7.0000e-005	8.7600e-003	2.3100e-003	6.0000e-005	2.3700e-003	0.0000	6.9548	6.9548	3.3000e-004	0.0000	6.9618

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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					0.5363	0.0000	0.5363	0.0812	0.0000	0.0812	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0310	0.3102	0.2961	4.0000e-004		0.0149	0.0149		0.0139	0.0139	0.0000	34.9914	34.9914	9.9200e-003	0.0000	35.1997
Total	0.0310	0.3102	0.2961	4.0000e-004	0.5363	0.0149	0.5512	0.0812	0.0139	0.0951	0.0000	34.9914	34.9914	9.9200e-003	0.0000	35.1997

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	0.0385	0.5070	0.4954	1.8100e-003	0.0425	9.7600e-003	0.0523	0.0117	8.9800e-003	0.0206	0.0000	154.7295	154.7295	1.1800e-003	0.0000	154.7542
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2000e-004	6.2000e-004	6.4100e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3172	1.3172	6.0000e-005	0.0000	1.3185

Total	0.0390	0.5076	0.5018	1.8300e-003	0.0442	9.7700e-003	0.0539	0.0121	8.9900e-003	0.0211	0.0000	156.0467	156.0467	1.2400e-003	0.0000	156.0727
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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					0.2413	0.0000	0.2413	0.0365	0.0000	0.0365	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0310	0.3102	0.2961	4.0000e-004		0.0149	0.0149		0.0139	0.0139	0.0000	34.9914	34.9914	9.9200e-003	0.0000	35.1997
Total	0.0310	0.3102	0.2961	4.0000e-004	0.2413	0.0149	0.2562	0.0365	0.0139	0.0504	0.0000	34.9914	34.9914	9.9200e-003	0.0000	35.1997

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	0.0385	0.5070	0.4954	1.8100e-003	0.0425	9.7600e-003	0.0523	0.0117	8.9800e-003	0.0206	0.0000	154.7295	154.7295	1.1800e-003	0.0000	154.7542
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2000e-004	6.2000e-004	6.4100e-003	2.0000e-005	1.6500e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.3172	1.3172	6.0000e-005	0.0000	1.3185
Total	0.0390	0.5076	0.5018	1.8300e-003	0.0442	9.7700e-003	0.0539	0.0121	8.9900e-003	0.0211	0.0000	156.0467	156.0467	1.2400e-003	0.0000	156.0727

Operational data removed since it was not relevant to the analysis.