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SAN DIEGO STATE UNIVERSITY MISSION VALLEY CAMPUS MASTER PLAN PROJECT GREENHOUSE GAS EMISSIONS TECHNICAL REPORT

SAN DIEGO STATE UNIVERSITY
SAN DIEGO, CALIFORNIA

RAMBOLL

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ACRONYMS AND ABBREVIATIONS

Acronym	Definition
AB	Assembly Bill
ACC	Advanced Clean Cars
ACE	Affordable Clean Energy
AEP	Association of Environmental Professionals
AP-42	United States Environmental Protection Agency’s Compilation of Air Pollutant Emission Factors
APCD	Air Pollution Control District
AQMDs	Air Quality Management District
AR4	Fourth Assessment Report
AR5	Fifth Assessment Report
ARB	Air Resources Board
AvgHP	Maximum rated average horsepower
BAU	Business-As-Usual
CAA	California Ambient Air
CAFE	Corporate Average Fuel Economy
CalEEMod®	California Emission Estimator Model®
CalEPA	California Environmental Protection Agency
CalRecycle	California Department of Resources Recycling and Recovery
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CAT	Climate Action Team
CCCC	California Climate Change Center
CCP	Cities for Climate Protection
CEC	California Energy Commissions
CEQA	California Environmental Quality Act
CEUS	California Commercial End Use Survey
CFCs	chlorofluorocarbons
CH_4	methane
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CPUC	California Public Utilities Commission
CVRP	Clean Vehicle Rebate Project
DG	Design Guideline
DOE	Department of Energy
DOT	Department of Transportation
DWR	Department of Water Resources
EF	emission factor
EIR	Environmental Impact Report
EISA	Energy Independence and Security Act
EMFAC	EMission FACtors model
EO	Executive Order
EPA	Environmental Protection Agency
EVs	Electric vehicles
EVSE	electric vehicle supply equipment

ACRONYMS AND ABBREVIATIONS *(CONTINUED)*

Acronym	Definition
FAR	first assessment report
F&P	Fehr & Peers
FTES	full-time equivalent students
GHG	greenhouse gas
GHGIS	California Greenhouse Gas Inventory Spreadsheet
GW	Gigawatt
GWP	global warming potential
HFCs	hydrofluorocarbons
HOV	high-occupancy vehicle
I-8	Interstate 8
I-15	Interstate 15
ICLEI	International Council of Local Environmental Initiatives
IPCC	Intergovernmental Panel on Climate Change
ITE	Institute of Transportation Engineers
kWh	kilowatt-hour
lbs	pounds
LBL	Lawrence Berkeley National Laboratory
LCFS	Low Carbon Fuel Standard
LMV	light- and medium-duty vehicles
Mgal	million gallons
MMT	million metric tonnes
MOU	Memorandum of Understanding
mpg	miles per gallon
MPO	Metropolitan Planning Organization
MSW	Municipal solid waste
MVCP	Mission Valley Community Plan
MT	metric tonnes
N_2O	nitrogen dioxide
NHTSA	National Highway Traffic Safety Administration
OPR	Office of Planning and Research
PDF	Project Design Feature
PEIR	Program Environmental Impact Report
PEVs	plug-in electric vehicles
PFCs	perfluorocarbons
PG&E	Pacific Gas and Electric
ppm	parts per million
PUP	Power/Utility Protocol
PV	Solar Photovoltaic
RASS	Residential Appliance Saturation Survey
RCP	Representative Concentration Pathways
RPS	Renewables Portfolio Standards
RTP	Regional Transportation Plan
SAFE	Safer Affordable Fuel-Efficient
SANDAG	San Diego Association of Governments

ACRONYMS AND ABBREVIATIONS *(CONTINUED)*

Acronym	Definition
SANTEC	San Diego Regional Traffic Engineers
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCS	Sustainable Communities Strategy
SDAB	San Diego Air Basin
SDAPCD	Santa Barbara County Air Pollution Control District
SDG&E	San Diego Gas & Electric
SDCCU	San Diego County Credit Union
SDSU	San Diego State University
SDMC	San Diego Municipal Code
$SeqCO_2$	sequestered of carbon dioxide
SF6	Sulfur hexafluoride
SLCPs	short-lived climate pollutants
TDM	Transportation Demand Management
TDV	Time Dependent Valuation
USEPA	United States Environmental Protection Agency
VMT	vehicle miles travelled
VW	Volkswagen
ZEVs	Zero emission vehicles
ZNE	Zero Net Energy

1. INTRODUCTION

Ramboll US Corporation (Ramboll) was retained to prepare a Greenhouse Gas (GHG) Emissions Technical Report for the proposed San Diego State University (SDSU) Mission Valley Campus Master Plan Project (proposed project). The proposed project is referenced in San Diego Municipal Code (SDMC) Section 22.0908, Sale of Real Property to SDSU, which was adopted after the SDSU West Campus Research Center, Stadium, and River Park Initiative (Measure G) was approved by the voters of the City of San Diego on November 6, 2018.

This GHG Emissions Technical Report analyzes the proposed project's impacts on GHGs from construction and operations. In particular, this report describes the existing setting of the project site, describes the relevant regulatory setting, discusses the methodology used to evaluate GHG emissions related to the project, describes relevant project design features, and evaluates potential impacts related to GHGs that would result with implementation of the proposed project.

1.1 Project Site and Description

The property comprising the project site is located in the northeast portion of the Mission Valley community within the City of San Diego. Specifically, the project site is situated south of Friars Road, west of Interstate 15 (I-15), north of Interstate 8 (I-8), and east of the existing Fenton Marketplace shopping center. It is approximately 5 miles from downtown San Diego and approximately 2.5 miles west of the existing SDSU main campus situated along I-8 within the College Area Community of the City of San Diego.

The proposed project entails the acquisition, construction, and operation of a new 169-acre SDSU Mission Valley mixed-use campus, research park, and stadium to support SDSU's education, research, entrepreneurial, technology, and athletics programs that can no longer be accommodated at SDSU's existing 287-acre main campus. Specifically, the proposed project would include:

A. approximately 84 acres of open space, including shared SDSU/community active and passive parks and recreation fields, the approximate 34-acre River Park, and pedestrian, hiking, and biking trails;

B. approximately 1.6 million square feet of campus uses for education, research, entrepreneurial, and technology programs;

C. construction of a new, multipurpose 35,000-capacity stadium and the corresponding demolition of the existing San Diego County Credit Union (SDCCU) Stadium (formerly, "Qualcomm Stadium");

D. approximately 4,600 residential homes for student, faculty, staff, including market-rate, workforce, and affordable homes, in proximity to a vibrant university village atmosphere;

E. two hotels with approximately 400 hotel rooms to support campus visitors and stadium-related events, provide additional conference facilities, and provide academic opportunities for graduate and undergraduate students in SDSU's hospitality and tourism management program;

F. approximately 95,000 square feet of community-serving retail space to support campus, stadium, and related facilities;

G. trolley/transit opportunities to minimize vehicular traffic use by using the existing underutilized Metropolitan Transit System's Green Line transit station, accommodating the planned Purple Line transit station, and providing an enhanced pedestrian connection to the existing light rail transit center; and

H. associated infrastructure, utilities, facilities, and other amenities.

The new SDSU Mission Valley Campus Master Plan would accommodate up to 15,000 full-time equivalent students (FTES) over time, resulting in a total student headcount of approximately 20,000 students and resulting in approximately 1,900 total faculty and staff. **Table 1-1** provides a statistical breakdown of the components of the proposed project.

1.2 Existing Condition

The property comprising the project site includes three existing uses: (1) a multi-purpose stadium (SDCCU Stadium) with an existing capacity of approximately 71,500 seats for football and other events; (2) an associated surface parking lot with approximately 18,870 parking spaces; and (3) the Metropolitan Transit System's existing Green Line transit station, which provides trolley service running toward downtown San Diego to the west and Santee to the east. The SDSU main campus is three trolley stops from the existing on-site trolley station.

1.3 Project Analysis

This report evaluates the GHG emissions associated with project-related construction activities and operational activities for complete buildout of the proposed project. Project buildout is estimated to be realized in calendar year 2037. Because California has adopted regulatory measures for GHG emissions that take effect by 2030, some aspects of the project GHG emissions inventory are based on these adopted 2030 regulatory measures (e.g., renewable portfolio standard [RPS]). Other aspects of the GHG inventory, such as the EMFAC2014 emissions factors for mobile sources, are more representative of project conditions at full buildout. We note that California Emission Estimator Model® (CalEEMod®) allows for operational years up to 2035; given that the mobile emission factors are based on the operational year, the mobile emission factors used to estimate the corresponding mobile emissions are based on values from EMFAC2014 for the year 2035.

The analysis provided by this report is conservative because further beneficial changes to California's regulatory framework, serving to reduce energy consumption and thus GHG emissions, are reasonably anticipated with the passage of time. For example, California revises its building energy standards (set forth in Title 24 of the California Code of Regulations) on a periodic basis. California's building codes are published in their entirety every three years. Intervening Code Adoption Cycles produce Supplement pages half-way (18 months) into each triennial period. The next Title 24 code to be published is the 2019 Code; the corresponding building energy standards were adopted in May 2018 and will take effect in January 2020. Each subsequent building code has required more energy efficiency than the previous codes. Accordingly, because this analysis is based on current codes, it necessarily will result in an overestimate of actual GHG emissions from energy usage in buildings. Similarly, further electrification of California's vehicle fleet is expected over time, as various agencies pursue legislative, regulatory and policy solutions to facilitate turnover of the vehicle fleet from internal combustion engines to zero emission engines. This analysis does not anticipate fleetwide shifts beyond the parameters of EMFAC2014, as incorporated into CalEEMod.

1.4 Project Design Features

The project design includes a number of sustainability-oriented Project Design Features (PDFs) that are intended to move the project "beyond code." Many of these design PDFs are consistent with the City of San Diego Climate Action Plan (CAP) and its implementing CAP Consistency Checklist, as well as the City's draft Mission Valley Community Plan (MVCP). (See **Appendix A**.)

A subset of the PDFs has been quantitatively included in this analysis, while the remaining PDFs have not been quantified (due to modelling or other calculation-related limitations). The four PDFs that have been quantified in this report are:

<u>Solar Photovoltaic (PV) Panels</u>

The proposed project is incorporating solar PV panels on available roof space; the PV panels are estimated to create a total generation capacity equivalent to 10,819,478 kWh of electricity.

<u>Electric Vehicle (EV) Ready Infrastructure and EV Chargers</u>

The project is equipping 3% of total residential parking spaces and 6% of total non-residential parking spaces with appropriate electric supply equipment to allow for the future installation of EV chargers (i.e., "EV ready"). Of these EV ready spaces, 50% will be equipped with EV charging stations. In total, approximately 500 spaces will be designated as "EV ready" and 252 of the "EV ready" spaces will be equipped with operable EV charging stations.

<u>TDM Program</u>

The project's Transportation Demand Management (TDM) Program incentivizes alternative transportation besides single-occupant commuter trips. The TDM Program consists of the following strategies:

- Land Use Diversity
- Neighborhood Site Enhancement
  - New Bicycle Facilities
  - Dedicated Land for Bicycle/Multi-Use Trails
  - Bicycle Parking
  - Showers and Lockers in Employment Areas
  - Increased Intersection Density
  - Traffic Calming
  - Car Share Service Accommodations
  - Enhanced Pedestrian Network
- Parking Policy and Pricing
  - Unbundled Residential Parking
  - Metered On-Street Parking
  - Reduced Parking Supply

- Commute Trip Reduction Services
  - TDM Program Coordinator and Marketing
  - Electric Bike-Share Accommodations
  - Ridesharing Support
  - School Pool
  - Hotel Shuttle Service

The TDM Program strategies described above apply to the project's campus office, residential and retail uses. TDM Program strategies also have been developed exclusively for the project's stadium land use that are not listed here, as they are not quantitatively accounted for in this analysis (see below). For additional information on the project's TDM Program, with respect to both stadium and non-stadium uses, please see Fehr & Peers' Transportation Impact Analysis (2019) for the project.

Residential Hearths

The proposed project is incorporating a limited number of natural gas fireplaces, and no wood-burning fireplaces, within project residences. Of all residential units in the project, up to 5% of the units may include a natural gas fireplace.

Other PDFs with GHG reduction benefits that have not been quantified in this report and only are considered qualitatively include:

- The layout of the project's development areas has been designed to maximize the unique infill opportunity presented at this Mission Valley location. This includes benefits from the existing Metropolitan Transit System's Green Line transit station that runs through the project, as well as the planned Purple Line transit station.
- The mixed-use development locates buildings in close proximity to one another, which would facilitate the use of common heating/cooling sources, where feasible, as project-level development proceeds. (The use of common heating/cooling sources will be evaluated as the building plans for individual development parcels are developed; relevant factors that will influence the use of such sources include the temporal proximity of development, type of use, and market forces.)
- Project development areas would maximize natural ventilation.
- The proposed project integrates extensive parks and landscaping, including the planting of new, on-site trees to minimize heat gain.
- The proposed project would include adaptive lighting controls, where appropriate and feasible, in order to maximize energy efficiency and minimize light pollution.
- The proposed project would achieve LEED Version 4 at a Silver or better certification level, as well as a Neighbourhood Development designation for sitewide design. LEED certification is based on standards that encourage the development of energy-efficient and sustainable buildings.
- Events at the proposed project's multipurpose stadium would benefit from implementation of TDM Program strategies specifically developed for application to stadium-related events. These strategies focus on the use of alternative modes of

transportation, including transit, to reduce single-occupancy vehicle usage and parking demand on event days.

It also is noted that, in 2014, the California State University Board of Trustees adopted its Sustainability Policy.[1] To the extent applicable, project-related development will comply with the principles and goals set forth in the CSU Sustainability Policy.

[1] Joint Meeting Committees on Educational Policy and Campus Planning, Buildings and Groups. Available at: http://www.calstate.edu/cpdc/sustainability/policies-reports/documents/JointMeeting-CPBG-ED.pdf. Accessed: July 2019.

2. SCIENTIFIC AND REGULATORY BACKGROUNDS

2.1 Scientific Background

2.1.1 Science of Global Climate Change

There is a general scientific consensus that global climate change is occurring, caused in whole or in part by increased emissions of GHGs that keep the Earth's surface warm by trapping heat in the Earth's atmosphere, in much the same way as glass traps heat in a greenhouse. The Earth's climate is changing because human activities, primarily the combustion of fossil fuels, are altering the chemical composition of the atmosphere through the buildup of GHGs. GHGs allow the sun's radiation to penetrate the atmosphere and warm the Earth's surface, but do not let the infrared radiation emitted from the Earth escape back into outer space. As a result, global temperatures are predicted to increase over the century. In particular, if climate change remains unabated, surface temperatures in California are expected to increase anywhere from 4.1 to 8.6 degrees Fahrenheit by the end of the century. Not only would higher temperatures directly affect the health of individuals through greater risk of dehydration, heat stroke, and respiratory distress, the higher temperatures may increase ozone formation, thereby worsening air quality. Rising temperatures could also reduce the snowpack, which would increase the risk of water shortages. Higher temperatures along with reduced water supplies could reduce the quantity and quality of agricultural products. In addition, there could be an increase in wildfires and a shift in distribution of natural vegetation throughout the State. Global warming could also increase sea levels and coastal storms resulting in greater risk of flooding.

Emissions of carbon dioxide (CO_2) are the leading cause of global warming, with other pollutants such as methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons, and sulfur hexafluoride also contributing. The magnitude of the impact on global warming differs among the GHGs. For example, HFCs, perfluorocarbons, and sulfur hexafluoride have a greater "global warming potential" than CO_2. In other words, these other GHGs have a greater contribution to global warming than CO_2 on a per mass basis. The effect each GHG has on climate change is measured as a combination of the volume of its emissions and its global warming potential (GWP), and is expressed as a function of how much warming would be caused by the same mass of CO_2. Thus, GHG emissions are typically measured in terms of megagrams or MT of CO_2e. CO_2 has the greatest impact on global warming because of the relatively large quantities of CO_2 emitted into the atmosphere.

Globally, CO_2 concentrations, which ranged from 265 parts per million (ppm) to 280 ppm over the last 10,000 years, only began rising in the last 200 years to current levels of 407 ppm,[2] a 45 percent increase.

In 2017, the United States emitted about 6.5 billion MT of CO_2e or about 19.9 MT/person/year, calculated by dividing the emissions total by the U.S. Census Bureau 2017 population estimate. [3, 4] This represents a 12 percent reduction below 2005 total

[2] Global annual mean CO_2 concentration for 2018 obtained from: ftp://aftp.cmdl.noaa.gov/products/trends/co2/co2_annmean_gl.txt. Accessed: July 2019.

[3] USEPA. 2017. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2017. Available at: https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks. Accessed: July 2019.

[4] U.S. Census Bureau. Annual Estimates of the Resident Population for the United States, Regions, States, and Puerto Rico: April 1, 2010 to July 1, 2018 (NST-EST2018-01). Available at:

emission levels. Of the four major sectors nationwide -- residential, commercial, industrial and transportation -- transportation accounts for the highest fraction of GHG emissions (approximately 57 percent of emissions from these four sectors). These emissions are entirely generated from direct fossil fuel combustion. Fifty-nine percent of these transportation emissions resulted from passenger car and light-duty truck use. The remaining emissions came from other transportation activities, including the combustion of diesel fuel in medium- and heavy-duty vehicles, and jet fuel in aircraft. According to the Inventory of U.S. Greenhouse Gas Emissions and Sinks,[5] from 2005 to 2017, transportation emissions dropped by 3 percent due, in part, to increased fuel efficiency across the U.S. vehicle fleet, as well as higher fuel prices, and an associated decrease in the demand for passenger transportation. However, from 1990 to 2017 as a whole, transportation emissions from fossil fuel combustion rose by 22 percent, "due, in large part, to increased demand for travel".[6]

In 2016, California emitted approximately 429 million tonnes of CO_2e, or about 7 percent of the U.S. emissions.[7] California's percentage contribution is due primarily to the sheer size of California, as compared to other states. For example, in 2014 (the most recent year of state rankings for GHG emissions per capita), California had the seventh lowest per capita GHG emission rates in the country (including Washington DC),[8] due to the success of its energy-efficiency and renewable energy programs and commitments that have lowered the State's GHG emissions rate of emissions growth.[9] California's per capita GHG emissions in 2016 were 10.8 metric tons per person[10], while the U.S. per capita GHG emissions in that same year were 20.1 metric tons per person.[11, 12] Another factor that has reduced California's fuel use and GHG emissions is its mild climate compared to that of many other states.

The California Energy Commission (CEC) found that transportation is the source of approximately 41 percent of the State's GHG emissions, followed by industrial sources at 23 percent, and electricity generation (both in-state and out-of-state) at 16 percent. Residential

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https://www2.census.gov/programs-surveys/popest/tables/2010-2018/state/totals/nst-est2018-01.xlsx. Accessed: July 2019.

5 USEPA. 2019. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2017. Available at: https://www.epa.gov/sites/production/files/2019-04/documents/us-ghg-inventory-2019-main-text.pdf. Accessed: July 2019.

6 Ibid.

7 CARB. 2018. California Greenhouse Gas Emission Inventory - 2018 Edition. Available at: http://www.arb.ca.gov/cc/inventory/data/data.htm. Accessed: July 2019.

8 World Resources Institute, CAIT 2.0, 2014. Climate Analysis Indicators Tool: WRI's Climate Data Explorer. Washington, DC. Available at: http://cait2.wri.org/. Accessed: July 2019.

9 The Center for Resource Efficient Communities. 2013. Residential Energy Use and GHG Emissions Impact of Compact Land Use Types. Report to ARB, Contract No. 10-323. Available at: http://www.arb.ca.gov/research/apr/past/10-323h.pdf. Accessed: July 2019.

10 CARB. 2018. California Greenhouse Gas Emission Inventory - 2018 Edition. Available at: http://www.arb.ca.gov/cc/inventory/data/data.htm. Accessed: July 2019.

11 USEPA. 2019. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2017. Available at: https://www.epa.gov/sites/production/files/2019-04/documents/us-ghg-inventory-2019-main-text.pdf. Accessed: July 2019.

12 U.S. Census Bureau. Annual Estimates of the Resident Population for the United States, Regions, States, and Puerto Rico: April 1, 2010 to July 1, 2018 (NST-EST2018-01). Available at: https://www2.census.gov/programs-surveys/popest/tables/2010-2018/state/totals/nst-est2018-01.xlsx. Accessed: July 2019.

and commercial activities comprised approximately 12 percent of the inventory. Agriculture and forestry is the source of approximately 8 percent of the State's GHG emissions.[13]

The construction and operation of land use developments cause GHG emissions. Operational phase GHG emissions result from energy use associated with heating, lighting and powering buildings (typically through natural gas and electricity consumption), pumping and processing water, fuel used for transportation, and decomposition of waste associated with building occupants. New development can also create GHG emissions in its construction and demolition phases, including the use of fuels in construction equipment, creation and decomposition of building materials, vegetation clearing, natural gas usage, electrical usage, and transportation.

However, it is important to acknowledge that new land use development does not necessarily create entirely new GHG emissions, since most of the persons who will visit or occupy new development will come from other locations where they were already causing such GHG emissions. Further, because climate change is occurring on a global scale, it is not meaningfully possible to quantify the scientific effect of new GHG emissions caused by a single project. It has not been demonstrated that new GHG emissions caused by a local development project can affect global climate change, or that a project's net increase in GHG emissions, if any, when coupled with other activities in the region, would be cumulatively considerable.[14]

2.1.2 Potential Effects of Human Activity on Global Climate Change

Globally, climate change has the potential to impact numerous environmental resources through anticipated, though uncertain, impacts related to future air temperatures and precipitation patterns. Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century. At the end of the 21st century, global surface temperature change is likely to exceed 1.5°C (relative to 1850-1900 levels) in all four assessed climate model projections but one.[15]

The understanding of GHG emissions, particulate matter, and aerosols on global climate trends is complex and involves varying uncertainties and a balance of different effects. In addition to uncertainties about the extent to which human activity rather than solar or volcanic activity is responsible for increasing warming, there is also evidence that some human activity has cooling, rather than warming, effects, as discussed in detail in numerous publications by the Intergovernmental Panel on Climate Change (IPCC), such as the Fifth

[13] CARB. California Greenhouse Gas Emission Inventory – 2018 Edition. Available at: https://www.arb.ca.gov/cc/inventory/data/data.htm. Accessed: July 2019.

[14] CAPCOA, 2008. CEQA & Climate Change. p. 35. January. Available at: http://www.capcoa.org/wp-content/uploads/downloads/2010/05/CAPCOA-White-Paper.pdf. Accessed: July 2019.

[15] Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report. Climate Change 2014: Synthesis Report. 2014. SPM.2.2. Available at: https://www.ipcc.ch/site/assets/uploads/2018/02/SYR_AR5_FINAL_full.pdf. Accessed: July 2019.

Assessment Report (AR5) Synthesis Report.[16, 17] Nonetheless, when all effects and uncertainties are considered together, there is a strong scientific consensus that human activity has contributed significantly to global warming. As stated in the AR5 discussion of attribution of climate changes and impacts, "The evidence for human influence on the climate system has grown since IPCC'S Fourth Assessment Report (AR4) ….it is extremely likely to have been the dominant cause of the observed warming since the mid-20th century."[18]

Acknowledging uncertainties regarding the rate at which anthropogenic GHG emissions would continue to increase (based upon various factors under human control, such as future population growth and the locations of that growth; the amount, type, and locations of economic development; the amount, type, and locations of technological advancement; adoption of alternative energy sources; legislative and public initiatives to curb emissions; and public awareness and acceptance of methods for reducing emissions), and the impact of such emissions on climate change, the IPCC devises emission scenarios which utilize various assumptions about the rates of economic development, population growth, and technological advancement over the course of the next century. For the AR5, Representative Concentration Pathways (RCPs) were developed to describe four different 21st century scenarios of greenhouse gas emissions, atmospheric concentrations, air pollutant emissions, and land use. RCPs are based on a combination of integrated assessment models, simple climate models, atmospheric chemistry, and global carbon cycle models. The four RCPs include a mitigation scenario, two stabilizing scenarios, and one scenario with very high GHG emissions. "The RCPs cover a wider range than the scenarios from the Special Report on Emissions Scenarios used in previous assessments, as they also represent scenarios with climate policy."[19]

The projected effects of global warming on weather and climate are likely to vary regionally, but are expected to include the following direct effects according to the IPCC.[20]

- It is *very likely* that the Arctic sea ice cover will continue to shrink and thin and that Northern Hemisphere spring snow cover will decrease during the 21st century as global mean surface temperature rises. Global glacier volume will further decrease.

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[16] The IPCC was established in 1988 by the World Meteorological Organization and the United Nations Environment Programme to assess scientific, technical, and socio-economic information relevant for the understanding of climate change, its potential impacts, and options for adaptation and mitigation. The IPCC has produced a series of Assessment Reports comprised of full scientific and technical assessments of climate change. The first assessment report (FAR) was developed in 1990. The Fifth Assessment Report was completed in November 2014 with the Synthesis Report.

[17] Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report. Climate Change 2014: Synthesis Report. 2014. Figure SPM.3. Available at: https://www.ipcc.ch/site/assets/uploads/2018/02/SYR_AR5_FINAL_full.pdf. Accessed: July 2019.

[18] Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report. Climate Change 2014: Synthesis Report. 2014. Section 1.3. Available at: https://www.ipcc.ch/site/assets/uploads/2018/02/SYR_AR5_FINAL_full.pdf. Accessed: July 2019.

[19] Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report. Climate Change 2014: Synthesis Report. 2014. Box 2.2. Available at: https://www.ipcc.ch/site/assets/uploads/2018/02/SYR_AR5_FINAL_full.pdf. Accessed: July 2019.

[20] Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report. Climate Change 2014: Synthesis Report. 2014. Available at: https://www.ipcc.ch/site/assets/uploads/2018/02/SYR_AR5_FINAL_full.pdf. Accessed: July 2019.

- It is virtually certain that there will be more frequent hot and fewer cold temperature extremes over most land areas on daily and seasonal timescales as global mean temperatures increase. It is very likely that heat waves will occur with a higher frequency and duration. Occasional cold winter extremes will continue to occur.
- Global surface temperature change for the end of the 21st century is likely to exceed 1.5°C relative to 1850 to 1900 for all RCP scenarios except the mitigation scenario. It is likely to exceed 2°C for the highest forcing scenario and one stabilizing scenario, and more likely than not to exceed 2°C for the remaining stabilizing scenario. Warming will continue beyond 2100 under all RCP scenarios except the mitigation scenario.
- The global ocean will continue to warm during the 21st century. Heat will penetrate from the surface to the deep ocean and affect ocean circulation.
- Climate change will affect carbon cycle processes in a way that will exacerbate the increase of CO_2 in the atmosphere (*high confidence*). Further uptake of carbon by the ocean will increase ocean acidification.
- Changes in the global water cycle in response to the warming over the 21st century will not be uniform. The contrast in precipitation between wet and dry regions and between wet and dry seasons will increase, although there may be regional exceptions. Global mean sea level will continue to rise during the 21st century.
- Cumulative emissions of CO_2 largely determine global mean surface warming by the late 21st century and beyond (see *supra*, footnote 16, Figure SPM.10). Most aspects of climate change will persist for many centuries even if emissions of CO_2 are stopped.

Potential secondary effects from global warming include global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity.

2.1.3 Potential Effects of Climate Change on the State of California

According to the CARB, some of the potential impacts in California of global warming may include loss in snowpack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years.[21] The California Climate Change Center (CCCC) has released four assessment reports on climate change in California, the most recent in 2018. Per California's Third Climate Change Assessment, by 2050, the State is projected to warm by approximately 2.7°F above 2000 averages, a threefold increase in the rate of warming over the last century. [22] California's Fourth Climate Change Assessment projects an increase by 5.6-8.8°F from 2070 to 2100 depending on greenhouse gas emission reductions (at a moderate rate or continuing at current rates).[23]

Below is a summary of some of the potential effects reported in an array of studies that could be experienced in California as a result of global warming and climate change.

[21] California Air Resources Board (CARB), 2006. Public Workshop to Discuss Establishing the 1990 Emissions Level and the California 2020 Limit and Developing Regulations to Require Reporting of Greenhouse Gas Emissions, Sacramento, CA. December 1.

[22] California Climate Change Center, 2012. Our Changing Climate 2012: Vulnerability and Adaptation to the Increasing Risks from Climate Change in California. CEC-500-2012-007. July 2012.

[23] California Climate Change Center, 2018. California's Changing Climate 2018. A Summary of Key Findings from California's Fourth Climate Change Assessment.

2.1.3.1 Air Quality

Higher temperatures, conducive to air pollution formation, could worsen air quality in California. Climate change may increase the concentration of ground-level ozone, but the magnitude of the effect, and therefore its indirect effects, are uncertain. For other pollutants, the effects of climate change and/or weather are less well studied, and even less well understood. If higher temperatures are accompanied by drier conditions, the potential for large wildfires could increase, which, in turn, would further worsen air quality. Studies have been conducted to evaluate the potential impacts of climate change on wildfire frequency based on lower and higher emissions scenarios. Per California's Third Climate Change Assessment, under a higher emissions scenario, increases in the number of large wildfires statewide could range from 58 to 128 percent above historic levels by 2085.[24] The estimated burned area is projected to increase between 57 and 169 percent, depending on location. However, if higher temperatures are accompanied by wetter, rather than drier conditions, the rains would tend to temporarily clear the air of particulate pollution and reduce the incidence of large wildfires, thus ameliorating the pollution associated with wildfires. Additionally, severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the State.[25] It is estimated that over the next decade, higher temperatures could increase the demand for electricity by 1 Gigawatt (GW) during summer months, which would require purchase of costly peak power from external sources or the construction of one new large power plant in California.[26] During periods of extreme heat, efficiency of electricity generation is reduced at natural gas plants; hydropower generation is reduced; and increased losses occur at substations; all while electricity demands are increased. These factors are projected to result in the need for more than 17 GW, or 38 percent of additional capacity, needed by 2100. Additionally, transmission lines lose 7 to 8 percent of transmitting capacity in higher temperatures, which also results in a need for increased power generation.[27]

2.1.3.2 Water Supply

Uncertainty remains with respect to the overall impact of global climate change on future water supplies in California. For example, models that predict drier conditions suggest decreased reservoir inflows and storage, and decreased river flows, relative to current conditions. By comparison, models that predict wetter conditions project increased reservoir inflows and storage, and increased river flows.[28]

A July 2006 technical report prepared by the California Department of Water Resources (DWR) addresses the State Water Project, the Central Valley Project, and the Sacramento-San Joaquin Delta. Although the report projects that, "[c]limate change will likely have a

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[24] California Climate Change Center, 2012. Our Changing Climate 2012: Vulnerability and Adaptation to the Increasing Risks from Climate Change in California. CEC-500-2012-007. July, 2012.

[25] California Climate Change Center (CCCC), 2006. Our Changing Climate: Assessing the Risks to California, CEC500-2006-077, Sacramento, CA. July. Available at: http://meteora.ucsd.edu/cap/pdffiles/CA_climate_Scenarios.pdf. Accessed: July 2019.

[26] California Climate Change Center, 2012. Our Changing Climate 2012: Vulnerability and Adaptation to the Increasing Risks from Climate Change in California. CEC-500-2012-007. July, 2012.

[27] Ibid.

[28] Brekke, L.D., et al, 2004. —Climate Change Impacts Uncertainty for Water Resources in the San Joaquin River Basin, California. Journal of the American Water Resources Association. 40(2): 149–164. Malden, MA, Blackwell Synergy for AWRA.

significant effect on California's future water resources … [and] future water demand," it also reports that, "there is much uncertainty about future water demand, especially those aspects of future demand that will be directly affected by climate change and warming. While climate change is expected to continue through at least the end of this century, the magnitude and, in some cases, the nature of future changes is uncertain. This uncertainty serves to complicate the analysis of future water demand, especially where the relationship between climate change and its potential effect on water demand is not well understood,"[29] DWR adds that "[i]t is unlikely that this level of uncertainty will diminish significantly in the foreseeable future."[30] Still, changes in water supply are expected to occur, and many regional studies have shown that large changes in the reliability of water yields from reservoirs could result from only small changes in inflows.[31]

California's Third Climate Change Assessment outlines the State's urgent water management challenges brought on as a result of climate change. These include increasing demand from a growing population as temperatures rise, earlier snowmelt and runoff, and faster-than-historical sea-level rise threatening aging coastal water infrastructure and levees in the Sacramento-San Joaquin Delta.[32] Additionally, they predict that competition between urban and agriculture water users and environmental needs will increase due to effects on water supply and stream flows.

The City of San Diego is procuring an agreement for the preparation of a 2020 Long-Range Water Resources Plan and a 2020 Urban Water Management Plan to update demand forecasting projects that are based on modeled scenarios incorporating a variety of climate change impacts.[33]

2.1.3.3 Hydrology

As discussed above, climate change could potentially affect the following: the amount of snowfall, rainfall and snowpack; the intensity and frequency of storms; flood hydrographs (flash floods, rain or snow events, coincidental high tide and high runoff events); sea level rise and coastal flooding; coastal erosion; and the potential for salt water intrusion. Sea level rise can be a product of global warming through two main processes -- expansion of sea water as the oceans warm and melting of ice over land. A rise in sea levels could result in coastal flooding and erosion and could also jeopardize California's water supply. In particular, saltwater intrusion would threaten the quality and reliability of the State's major fresh water supply that is pumped from the southern portion of the Sacramento/San Joaquin River Delta. Increased storm intensity and frequency could affect the ability of flood-control facilities, including levees, to handle storm events. Assuming the rate of sea level rise continues to follow global trends, sea level along California's coastline in 2050 could be 10-18 inches

[29] California Department of Water Resources (DWR), 2006. Progress on Incorporating Climate Change into Management of California Water Resources, Sacramento, CA. July.

[30] California Department of Water Resources (DWR), 2006. Progress on Incorporating Climate Change into Management of California Water Resources, Sacramento, CA. July.

[31] Kiparsky 2003, op. cit; DWR, 2005, op. cit.; Cayan, D., et al, 2006. Scenarios of Climate Change in California: An Overview (White Paper, CEC-500-2005-203-SF), Sacramento, CA. February.

[32] California Climate Change Center, 2012. Our Changing Climate 2012: Vulnerability and Adaptation to the Increasing Risks from Climate Change in California. CEC-500-2012-007. July, 2012.

[33] California's Fourth Climate Change Assessment – San Diego Region Report. March 2019. Available at: http://www.climateassessment.ca.gov/regions/docs/20190321-SanDiego.pdf. Accessed: July 2019.

higher than in 2000, and 31-55 inches higher by the end of this century.[34] Based on these current projections, the current 100-year storm could occur once every year. California's Third Climate Assessment projects that changes in stream flow in the Sacramento and San Joaquin valleys would result in critically dry years occurring 8 percent more frequently in the Sacramento Valley and 32 percent more frequently in the San Joaquin Valley, compared to the historical period between 1951 and 2000.

2.1.3.4 Agriculture

California has a $30 billion agricultural industry that produces half the country's fruits and vegetables. The CCCC notes that higher CO_2 levels can stimulate plant production and increase plant water-use efficiency. However, if temperatures rise and drier conditions prevail, water demand could increase, crop-yield could be threatened by a less reliable water supply, and greater ozone pollution could render plants more susceptible to pest and disease outbreaks. In addition, temperature increases could change the time of year that certain crops, such as wine grapes, bloom or ripen, and thus affect their quality.[35]

2.1.3.5 Ecosystems and Wildfire

Increases in global temperatures and the potential resulting changes in weather patterns could have ecological effects on a global and local scale. In 2004, the Pew Center on Global Climate Change released a report examining the possible impacts of climate change on ecosystems and wildlife.[36] The report outlines four major ways in which it is thought that climate change could affect plants and animals: (1) timing of ecological events, (2) geographic range, (3) species' composition within communities, and (4) ecosystem processes such as carbon cycling and storage.

2.2 Regulatory Background

2.2.1 Federal

2.2.1.1 Clean Air Act

In April 2007, in *Massachusetts v. EPA*, the U.S. Supreme Court directed the Administrator of the U.S. Environmental Protection Agency (USEPA) to determine whether GHG emissions from new motor vehicles cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In making these decisions, the USEPA Administrator was directed to follow the language of Section 202(a) of the Clean Air Act (CAA). In December 2009, the Administrator signed a final rule with two distinct findings regarding GHGs under Section 202(a) of the CAA:

- Elevated concentrations of GHGs—CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6—in the atmosphere threaten the public health and welfare of current and future generations. This is referred to as the "endangerment finding."
- The combined emissions of GHGs—CO_2, CH_4, N_2O, and HFCs—from new motor vehicles and new motor vehicle engines contribute to the GHG air pollution that endangers public health and welfare. This is referred to as the "cause or contribute finding."

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[34] Ibid.

[35] California Climate Change Center (CCCC), 2006, op. cit.

[36] Parmesan, C. and H. Galbraith, Observed Impacts of Global Climate Change in the U.S., Arlington, VA: Pew Center on Global Climate Change, November 2004.

These two findings were necessary to establish the foundation for regulation of GHGs from new motor vehicles as air pollutants under the CAA.

2.2.1.2 Federal Plan to Reduce GHG Emissions by 2025

In 2015, President Obama signed Executive Order 13693 (EO 13693), which was intended to reduce the federal government's GHG emissions by 40 percent by 2025 by requiring the following:

- Ensuring that 25 percent of total energy consumption is from clean energy sources;
- Reducing energy use in federal buildings by 2.5 percent per year between 2015 and 2025;
- Reducing per-mile GHG emissions from federal fleets by 30 percent (from 2014 levels) by 2025 and increasing the percentage of zero-emissions and plug-in hybrid vehicles in federal fleets; and
- Reducing water intensity in federal buildings by 2 percent per year through 2025.

This executive order was revoked by President Trump's Executive Order 13834 in May 2018.

2.2.1.3 Federal Vehicle Standards

In response to the *Massachusetts v. EPA* decision discussed above, in 2007, President Bush directed the USEPA, the Department of Transportation (DOT), and the Department of Energy (DOE) to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the National Highway Traffic Safety Administration (NHTSA) issued a final rule regulating fuel efficiency for and GHG emissions from cars and light-duty trucks for model year 2011; and, in 2010, the USEPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016.

In 2010, President Obama issued a memorandum directing the same federal agencies to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the USEPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model year 2017–2025 light-duty vehicles. The proposed standards are projected to achieve 163 grams/mile of CO_2 in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon (mpg) if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017–2021.

In August 2017, the USEPA asked for additional information and data relevant to assessing whether the GHG emissions standards for model years 2022-2025 remain appropriate. In early 2018, the USEPA Administrator announced that the midterm evaluation for the GHG emissions standards for cars and light-duty trucks for model years 2022-2025 was completed and stated his determination that the current standards should be revised in light of recent data. Subsequently, in 2018, the USEPA and NHTSA proposed to amend certain existing Corporate Average Fuel Economy (CAFE) standards and tailpipe carbon dioxide emissions standards for passenger cars and light trucks and establish new standards, covering model years 2021-2026. Compared to maintaining the post-2020 standards now in place, the pending proposal would increase U.S. fuel consumption.[37] California and other

[37] Federal Register. 2018. *The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks*. Available at: https://www.federalregister.gov/documents/2018/08/24/2018-

states have announced their intent to challenge federal actions that would delay or eliminate GHG reductions. Because the pending proposal is still in the rulemaking phase, and because legal challenges to any future adoption of the proposal is likely, the timing and consequences of the pending proposal are speculative at this time.

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the USEPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for CO_2 emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles.

In August 2016, the USEPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model year 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans and all types of sizes of buses and work trucks. The final standards are expected to lower carbon dioxide emissions by approximately 1.1 billion MT and reduce oil consumption by up to two billion barrels over the lifetime of the vehicles sold under the program.[38]

2.2.1.4 Energy Independence and Security Act

The Energy Independence and Security Act of 2007 (EISA) facilitates the reduction of national GHG emissions by requiring the following:

- Increasing the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard that requires fuel producers to use at least 36 billion gallons of biofuel in 2022;
- Prescribing or revising standards affecting regional efficiency for heating and cooling products, procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances;
- Requiring approximately 25 percent greater efficiency for light bulbs by phasing out incandescent light bulbs between 2012 and 2014; requiring approximately 200 percent greater efficiency for light bulbs, or similar energy savings, by 2020; and
- While superseded by the USEPA and NHTSA actions described above, (i) establishing miles per gallon targets for cars and light trucks and (ii) directing the NHTSA to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for trucks.

Additional provisions of EISA address energy savings in government and public institutions, promote research for alternative energy, additional research in carbon capture, international energy programs, and the creation of "green jobs."

16820/the-safer-affordable-fuel-efficient-safe-vehicles-rule-for-model-years-2021-2026-passenger-cars-and. Accessed: July 2019.

[38] USEPA and NHTSA, 2016. Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium and Heavy-Duty Engines and Vehicles – Phase 2. Available at: https://www.gpo.gov/fdsys/pkg/FR-2016-10-25/pdf/2016-21203.pdf. Accessed: July 2019.

2.2.1.5 Clean Power Plan and New Source Performance Standards for Electric Generating Units

On October 23, 2015, the USEPA published a final rule establishing the Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electricity Utility Generating Units (80 FR 64510-64660), also known as the Clean Power Plan. These guidelines prescribe how states must develop plans to reduce GHG emissions from existing fossil-fuel-fired electric generating units. The guidelines establish CO_2 emission performance rates representing the best system of emission reduction for two subcategories of existing fossil-fuel-fired electric generating units: (1) fossil-fuel fired electric utility steam-generating units, and (2) stationary combustion turbines. Concurrently, the USEPA published a final rule establishing Standards of Performance for Greenhouse Gas Emissions from New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units (80 FR 64661-65120). The rule prescribes CO_2 emission standards for newly constructed, modified, and reconstructed affected fossil-fuel-fired electric utility generating units.

Implementation of the Clean Power Plan was stayed by the U.S. Supreme Court pending resolution of several lawsuits. Additionally, in March 2017, President Trump signed an executive order that calls for the USEPA's review of the Clean Power Plan. On October 25, 2017, the USEPA issued an Energy Independence Report to implement the executive order signed by the president. And, in August 2018, the USEPA issued the proposed Affordable Clean Energy (ACE) Rule, which would replace the Clean Power Plan. The USEPA held a public hearing on October 1, 2018 on the ACE rule proposal and the rulemaking proceedings are still pending at the time of this report's preparation.

2.2.2 State

The State of California considers GHG emissions and the impacts of climate change to be a serious threat to the public health, environment, economic well-being, and natural resources of California, and has taken an aggressive stance to mitigate the State's impact on climate change through the adoption of policies and legislation. The California Air Resources Board (CARB) is responsible for the coordination and oversight of State and local air pollution control programs in California. California has numerous regulations aimed at reducing the State's GHG emissions. Some of the major initiatives are summarized below.

2.2.2.1 Executive Order S-3-05

In 2005, Governor Schwarzenegger issued Executive Order (EO) S-3-05, which identifies Statewide GHG emission reduction targets to achieve long-term climate stabilization as follows:

- Reduce GHG emissions to 1990 levels by 2020; and
- Reduce GHG emissions to 80 percent below 1990 levels by 2050.

In response to EO S-3-05, California Environmental Protection Agency (CalEPA) created the Climate Action Team (CAT), which in March 2006 published the Climate Action Team Report (the "2006 CAT Report").[39] The 2006 CAT Report identified a recommended list of strategies that the State could pursue to reduce GHG emissions. These are strategies that could be

[39] California Environmental Protection Agency (CalEPA), March 2006. Climate Action Team Report to Governor Schwarzenegger and the Legislature. Available at: http://www.climatechange.ca.gov/climate_action_team/reports/2006report/2006-04-03_FINAL_CAT_REPORT.PDF. Accessed: July 2019.

implemented by various State agencies to ensure that the emission reduction targets in EO S-3-05 are met and can be met with existing authority of the State agencies. The strategies include, but are not limited to, the reduction of passenger and light-duty truck emissions, the reduction of idling times for diesel trucks, an overhaul of shipping technology/infrastructure, increased use of alternative fuels, increased recycling, and landfill methane capture.

2.2.2.2 Assembly Bill 32

Assembly Bill (AB) 32 (Nunez, 2006), the California Global Warming Solutions Act of 2006, was enacted after considerable study and expert testimony before the Legislature. The heart of AB 32 is the requirement that statewide GHG emissions be reduced to 1990 levels by 2020. In order to achieve this reduction mandate, AB 32 requires California Air Resources Board to adopt rules and regulations in an open public process that achieve the maximum technologically feasible and cost-effective GHG reductions.

In 2007, CARB approved a statewide limit on the GHG emissions level for year 2020 consistent with the determined 1990 baseline. CARB's adoption of this limit is in accordance with Health & Safety Code Section 38550, as codified through enactment of AB 32.

Per Health & Safety Code Section 38561(b), CARB also is required to prepare, approve and amend a scoping plan that identifies and makes recommendations on "direct emission reduction measures, alternative compliance mechanisms, market-based compliance mechanisms, and potential monetary and nonmonetary incentives for sources and categories of sources that [CARB] finds are necessary or desirable to facilitate the achievement of the maximum feasible and cost-effective reductions of greenhouse gas emissions by 2020."

a) 2008 Scoping Plan

In 2008, CARB adopted the *Climate Change Scoping Plan: A Framework for Change* (2008 Scoping Plan) in accordance with Health & Safety Code Section 38561. During the development of the 2008 Scoping Plan, CARB created a planning framework that is comprised of eight emissions sectors: (1) transportation; (2) electricity; (3) commercial and residential; (4) industry; (5) recycling and waste; (6) high global warming potential (GWP) gases; (7) agriculture; and, (8) forest net emissions.

The 2008 Scoping Plan establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions from the eight emissions sectors to 1990 levels by 2020. In the Scoping Plan, CARB determined that achieving the 1990 emissions level in 2020 would require a reduction in GHG emissions of approximately 28.5 percent from the otherwise projected 2020 emissions level; i.e., those emissions that would occur in 2020, absent GHG-reducing laws and regulations (referred to as "Business-As-Usual" [BAU]).[40] For example, in further explaining CARB's BAU methodology, CARB assumed that all new electricity generation would be supplied by natural gas plants, no further regulatory action would impact vehicle fuel efficiency, and building energy efficiency codes would be held at 2005 standards.

To achieve the necessary GHG reductions to meet AB 32's 2020 target, CARB developed a series of reduction measures in the Scoping Plan covering a range of sectors and activities.

[40] CARB, Climate Change Scoping Plan: A Framework for Change (December 2008), p. 12.

Broadly, the reduction measures can be separated into capped sectors (i.e., covered by the Cap-and-Trade Program discussed below) and uncapped sectors.

Multiple Scoping Plan measures broadly cover emissions associated with new residential and commercial land use development, including, but not limited to:

- *Energy Efficiency/Green Buildings.* The Scoping Plan highlights the importance of energy efficiency efforts in reducing GHG emissions from residential and commercial development and indicates that zero net energy (ZNE) should be the overarching and unifying concept for energy efficiency.
- *Regional Transportation-Related GHG Targets (SB 375)*. The Scoping Plan relies on Senate Bill (SB) 375, discussed below, as an important mechanism to reduce mobile GHG emissions by integrating land use planning and transportation planning at the regional and local level.
- *Vehicle Emissions*. The Scoping Plan relies on various engine, fuel and other efficiency improvement programs and increasing electrification of the vehicle fleet.
- *Cap-and-Trade Program*. The Scoping Plan identifies the Cap-and-Trade program as a lynchpin, overarching strategy for California to reduce GHG emissions. As explained in the Scoping Plan, the program's implementing regulations provide assurance that California's 2020 limit will be met because the regulation sets a firm limit on 85 percent of California's GHG emissions.

In the 2011 *Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document* (2011 Final Supplement), CARB revised its estimates of the projected 2020 emissions level in light of the economic recession and the availability of updated information about GHG reduction regulations. Based on the new economic data, CARB determined that achieving the 1990 emissions level by 2020 would require a reduction in GHG emissions of 21.7 percent (down from 28.5 percent) from the BAU conditions. When the 2020 emissions level projection also was updated to account for newly implemented regulatory measures, including Pavley I (model years 2009–2016) and the Renewable Portfolio Standard (12 percent to 20 percent), CARB determined that achieving the 1990 emissions level in 2020 would require a reduction in GHG emissions of 16 percent (down from 28.5 percent) from the BAU conditions.

b) 2014 First Update to the Scoping Plan

In 2014, CARB adopted the *First Update to the Climate Change Scoping Plan: Building on the Framework* (2014 First Update).[41] The stated purpose of the 2014 First Update is to "highlight […] California's success to date in reducing its GHG emissions and lay […] the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050."[42] The 2014 First Update found that California is on track to meet the 2020 emissions reduction mandate established by AB 32, and noted that California could reduce emissions further by 2030 to levels squarely in

[41] Health & Safety Code Section 38561(h) requires CARB to update the Scoping Plan every five years.

[42] CARB, First Update to the Climate Change Scoping Plan: Building on the Framework (May 2014), p. 4.

line with those needed to stay on track to reduce emissions to 80 percent below 1990 levels by 2050 if the State realizes the expected benefits of existing policy goals.[43]

In conjunction with the 2014 First Update, CARB identified "six key focus areas comprising major components of the State's economy to evaluate and describe the larger transformative actions that will be needed to meet the State's more expansive emission reduction needs by 2050."[44] Those six areas are: (1) energy; (2) transportation (vehicles/equipment, sustainable communities, housing, fuels, and infrastructure); (3) agriculture; (4) water; (5) waste management; and (6) natural and working lands. The 2014 First Update identifies key recommended actions for each sector that will facilitate achievement of the 2050 reduction target.

Based on CARB's research efforts, it has a "strong sense of the mix of technologies needed to reduce emissions through 2050."[45] Those technologies include energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and the rapid market penetration of efficient and clean energy technologies.

As part of the 2014 First Update, CARB recalculated the State's 1990 emissions level using more recent global warming potentials identified by the IPCC. Using the recalculated 1990 emissions level and the revised 2020 emissions level projection identified in the 2011 Final Supplement, CARB determined that achieving the 1990 emissions level by 2020 would require a reduction in GHG emissions of approximately 15.3 percent (instead of 28.5 percent or 16 percent) from the BAU conditions.

The 2014 First Update included a strong recommendation from CARB for setting a mid-term statewide GHG emissions reduction target. CARB specifically recommended that the mid-term target be consistent with: (i) the United States' pledge to reduce emissions 42 percent below 2005 levels (which translates to a 35 percent reduction from 1990 levels in California); and (ii) the long-term policy goal of reducing emissions to 80 percent below 1990 levels by 2050.

The 2014 First Update discussed new residential and commercial building energy efficiency improvements, specifically identifying progress towards zero net energy buildings as an element of meeting mid-term and long-term GHG reduction goals. The 2014 First Update expressed CARB's commitment to working with the California Public Utilities Commission (CPUC) and CEC to facilitate further achievements in building energy efficiency.

c) 2017 Scoping Plan

In November 2017, CARB published California's 2017 Climate Change Scoping Plan (2017 Scoping Plan), which was subsequently adopted by CARB's Board in December 2017.[46] The 2017 Scoping Plan identifies CARB's strategy for achieving the State's 2030 GHG target as established in SB 32 (discussed below).The strategy includes continuation of the Cap-and-Trade Program through 2030, and incorporates a Mobile Source Strategy that includes strategies targeted to increase zero emission vehicle fleet penetration and a more stringent

[43] Id. at p. 34.

[44] Id. at p. 6.

[45] Id. at p. 32.

[46] CARB. 2017. California's 2017 Climate Change Scoping Plan. November. Available at: https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed: July 2019.

target for the Low Carbon Fuel Standard by 2030. The 2017 Scoping Plan also incorporates approaches to cutting short-lived climate pollutants (SLCPs) under the Short-Lived Climate Pollutant Reduction Strategy (a planning document that was adopted by CARB in March 2017), and acknowledges the need for reducing emissions in agriculture and highlights the work underway to ensure that California's natural and working lands increasingly sequester carbon.

When discussing project-level GHG emissions reduction actions and thresholds, the 2017 Scoping Plan states:

"***Project-Level Greenhouse Gas Emissions Reduction Actions and Thresholds***

Beyond plan-level goals and actions, local governments can also support climate action when considering discretionary approvals and entitlements of individual projects through CEQA [California Environmental Quality Act]. Absent conformity with an adequate geographically-specific GHG reduction plan …, CARB recommends that projects incorporate design features and GHG reduction measures, to the degree feasible, to minimize GHG emissions. Achieving no net additional increase in GHG emissions, resulting in no contribution to GHG impacts, is an appropriate overall objective for new development. …

Achieving net zero increases in GHG emissions, resulting in no contribution to GHG impacts, may not be feasible or appropriate for every project, however, and the inability of a project to mitigate its GHG emissions to net zero does not imply the project results in a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA. …

California's future climate strategy will require increased focus on integrated land use planning to support livable, transit-connected communities, and conservation and other lands. Accommodating population and economic growth through travel- and energy-efficient land use provides GHG-efficient growth, reducing GHGs from both transportation and building energy use. GHGs can be further reduced at the project level through implementing energy-efficient construction and travel demand management approaches."

2.2.2.3 Cap-and-Trade Program

California's Cap-and-Trade Program (Cal. Code Regs., tit. 17, §§ 95800-96022) regulates the emissions of large electric power plants, large industrial plants, and fuel distributors (including transportation fuel and natural gas). These sources are responsible for about 85 percent of the State's total GHG emissions inventory.[47] As described by CARB:

> "Cap-and-trade is a market based regulation that is designed to reduce [GHGs] from multiple sources. Cap-and-trade sets a firm limit or cap on GHGs and minimize[s] the compliance costs of achieving AB 32 goals. The cap will decline approximately 3 percent each year beginning in 2013. Trading creates incentives to reduce GHGs below allowable levels through investments in clean technologies. With a carbon market, a price on carbon is established for GHGs. Market forces spur technological innovation and investments in clean energy. Cap-and-trade is an environmentally effective and economically efficient response to climate change."[48]

[47] CARB, Overview of ARB Emissions Trading Program (February 2015).

[48] CARB, Cap-and-Trade Program. Available at: http://www.arb.ca.gov/cc/capandtrade/capandtrade.htm. Accessed: July 2018.

In the Cap-and-Trade Program, the State regulates the quantity of emissions by determining, in advance, how many allowances to issue—i.e., setting the "cap." Each allowance is essentially a permit issued by the State authorizing a certain quantity of GHG emissions. There are only a finite number of allowances, ensuring that covered entities may only lawfully emit a certain quantity of GHGs. If a covered entity wishes to emit carbon, it must obtain allowances to authorize those emissions.

Importantly, the Cap-and-Trade Program has been designed to provide a firm cap, ensuring that the 2020 statewide emissions limit identified by CARB in the 2008 Scoping Plan will *not* be exceeded.[49] Thus, for the emission sources covered by the Program, which are nearly all of the sources associated with land use development projects (see **Table 2-1**), compliance with AB 32's 2020 mandate is assured by the Cap-and-Trade Program.

AB 398 (2017) extended the statutorily-defined horizon year of the Cap-and-Trade Program to December 31, 2030, thereby facilitating continued reliance on the Cap-and-Trade Program for purposes of achieving SB 32's 2030 statewide reduction target.

2.2.2.4 Executive Order B-30-15

In April 2015, Governor Brown signed EO B-30-15, which established the following GHG emission reduction goal for California: by 2030, reduce GHG emissions to 40 percent below 1990 levels. This EO also directed all state agencies with jurisdiction over GHG-emitting sources to implement measures designed to achieve the new interim 2030 goal, as well as the pre-existing, long-term 2050 goal identified in EO S-3-05 (see discussion above). Additionally, the EO directed CARB to update its Scoping Plan (see discussion above) to address the 2030 goal.

2.2.2.5 Senate Bill 32 and Assembly Bill 197

Enacted in 2016, SB 32 (Pavley, 2016) codifies the 2030 emissions reduction goal of EO B-30-15 by requiring CARB to ensure that statewide GHG emissions are reduced to 40 percent below 1990 levels by 2030.

SB 32 was coupled with a companion bill: AB 197 (Garcia, 2016). Designed to improve the transparency of CARB's regulatory and policy-oriented processes, AB 197 created the Joint Legislative Committee on Climate Change Policies, a committee with the responsibility to ascertain facts and make recommendations to the Legislature concerning statewide programs, policies, and investments related to climate change. AB 197 also requires CARB to make certain GHG emissions inventory data publicly available on its web site; consider the social costs of GHG emissions when adopting rules and regulations designed to achieve GHG emission reductions; and, include specified information in all Scoping Plan updates for the emission reduction measures contained therein.

2.2.2.6 Executive Order B-55-18

In September 2018, Governor Brown signed EO B-55-18, which established a new statewide goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." This EO directs CARB to "work with relevant state agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal."

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[49] CARB, 2008. Climate Change Scoping Plan: A Framework for Change (December 2008), pp. 30-31.

In January 2019, CARB held a workshop regarding carbon neutrality in California,[50] during which CARB staff explained that the definitional parameters and meaning of the term – carbon neutrality – are still being explored. CARB intends to hold additional workshops to explore specific topics related to the pursuit of carbon neutrality, engage with other experts in the field and stakeholders, and conduct research to ensure that any path to carbon neutrality balances scientific, economic and social justice principles.

2.2.2.7 Energy Sources

a) Renewables Portfolio Standard

As most recently amended by SB 100 (2018), California's Renewables Portfolio Standard requires retail sellers of electric services and local publicly-owned electric utilities to increase procurement from eligible renewable energy resources to 50 percent of total retail sales by 2026, and 60 percent of total retail sales by 2030. SB 100 also established a State policy goal to achieve 100 percent renewables by 2045.

b) Building Energy Efficiency Standards

Title 24, Part 6 of the California Code of Regulations regulates the design of building shells and building components. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods.

The California Energy Commission's (CEC) 2016 Building Energy Efficiency Standards (2016 Building Standards), which become on effective January 1, 2017, are the currently applicable version of these standards. In general, single-family homes built to the 2016 standards are anticipated to use about 28% less energy for lighting, heating, cooling, ventilation, and water heating than those built to the 2013 standards, and nonresidential buildings built to the 2016 standards will use an estimated 5% less energy than those built to the 2013 standards.[51] The CEC also has developed and adopted the 2019 Building Standards, which will go into effect on January 1, 2020. The 2019 Building Standards are expected to result in further energy savings and efficiencies, as compared to the 2016 standards.

In addition to the CEC's efforts, in 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11 of Title 24) is commonly referred to as CalGreen Building Standard (CalGreen), and establishes voluntary and mandatory standards pertaining to the planning and design of sustainable site development, energy efficiency, water conservation, material conservation, and interior air quality. Like Part 6 of Title 24, the CalGreen standards are periodically updated, with increasing energy savings and efficiencies associated with each code update.

c) Appliance Standards

The CEC periodically amends and enforces Appliance Efficiency Regulations contained in Title 20 of the California Code of Regulations. The regulations establish water and energy efficiency standards for both federally-regulated appliances and non-federally regulated

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[50] CARB. Carbon Neutrality in California Context Webinar. January 2019. Available at: https://www.arb.ca.gov/cc/scopingplan/meetings/012319/cneutrality_ca_script.pdf. Accessed: July 2019.

[51] CEC. 2015. 2016 Building Energy Efficiency Standards – Frequently Asked Questions. Available at: http://www.energy.ca.gov/title24/2016standards/rulemaking/documents/2016_Building_Energy_Efficiency_Standards_FAQ.pdf. Accessed: July 2019.

appliances. The regulations cover numerous categories of appliances (e.g., refrigerators; plumbing fixtures; dishwashers; clothes washer and dryers; televisions) and apply to appliances offered for sale in California.[52]

2.2.2.8 Mobile Sources

a) Sustainable Communities Strategy Plans

SB 375 (Steinberg, 2008), the Sustainable Communities and Climate Protection Act, coordinates land use planning, regional transportation plans, and funding priorities to reduce GHG emissions from passenger vehicles through better-integrated regional transportation, land use, and housing planning that provides easier access to jobs, services, public transit, and active transportation options. SB 375 specifically requires the Metropolitan Planning Organization (MPO) relevant to the project area (here, the San Diego Association of Governments [SANDAG]) to include a Sustainable Communities Strategy in its Regional Transportation Plan (RTP) that, if implemented, will achieve GHG emission reduction targets set by CARB by reducing vehicle miles traveled from light-duty vehicles through the development of more compact, complete, and efficient communities.

For the area under SANDAG's jurisdiction, including the project site, CARB originally adopted regional targets for reduction of mobile source-related GHG emissions of 7 percent for 2020 and 13 percent for 2035. The targets are expressed as a percentage change in per capita passenger vehicle GHG emissions relative to 2005 emissions levels. These original targets were in place through September 30, 2018. In March 2018, CARB approved updated regional targets of 15% for 2020 and 19% for 2035 for SANDAG, which will apply to future RTP/SCS planning cycles beginning October 1, 2018.

b) Senate Bill 743

Public Resources Code Section 21099(c)(1), as codified through enactment of SB 743 (Steinberg, 2013), authorized the Office of Planning and Research (OPR) to establish "alternative metrics to the metrics used for traffic levels of service for transportation impacts outside transit priority areas." SB 743 reflects a legislative policy to balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of GHG emissions. As finalized in December 2018, amendments to the State CEQA Guidelines adopted in furtherance of SB 743 establish vehicle miles travelled (VMT), in lieu of level of service, as the new metric for transportation analysis.

c) Pavley Regulations

AB 1493 (Pavley, 2002) required CARB to adopt regulations to reduce GHG emissions from non-commercial passenger vehicles and light-duty trucks for model years 2009–2016. CARB obtained a waiver from the USEPA that allows for implementation of these regulations notwithstanding possible federal pre-emption concerns.

d) Low Carbon Fuel Standard

EO S-1-07, as issued by Governor Schwarzenegger, called for a 10 percent or greater reduction in the average fuel carbon intensity for transportation fuels in California regulated

[52] CEC. Title 20 Appliance Efficiency Program. Available at: https://www.energy.ca.gov/appliances/. Accessed: July 2019.

by CARB by 2020. [53] In response, CARB approved the Low Carbon Fuel Standard (LCFS) regulations in 2009, which became fully effective in April 2010. Thereafter, a lawsuit was filed challenging CARB's adoption of the regulations; and, in 2013, a court order was issued compelling CARB to remedy substantive and procedural defects of the LCFS adoption process under CEQA. [54] However, the court allowed implementation of the LCFS to continue pending correction of the identified defects. In September 2015, CARB re-adopted the LCFS regulations. The LCFS would reduce GHG emissions by reducing the carbon intensity of transportation fuels used in California by at least 10% by 2020 and, as most recently amended in 2018, by at least 20% by 2030.

e) Advanced Clean Cars Program

In 2012, CARB approved the Advanced Clean Cars (ACC) program, a new emissions-control program for non-commercial passenger vehicles and light-duty truck for model years 2017-2025. The program combines the control of smog, soot, and GHGs with requirements for greater numbers of zero emission vehicles. By 2025, when the rules will be fully implemented, new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions.

f) Zero Emission Vehicles

Zero emission vehicles (ZEVs) include hydrogen fuel cell electric vehicles and plug-in electric vehicles, such as battery electric vehicles and plug-in hybrid electric vehicles.

In 2012, Governor Brown issued EO B-16-2012, which calls for the increased penetration of ZEVs into California's vehicle fleet in order to help California achieve a reduction of GHG emissions from the transportation sector equaling 80 percent less than 1990 levels by 2050. In furtherance of that statewide target for the transportation sector, the EO also calls upon CARB, the CEC and the California Public Utilities Commission to establish benchmarks that will: (1) allow over 1.5 million ZEVs to be on California roadways by 2025, and (2) provide the State's residents with easy access to ZEV infrastructure. EO B-16-2012 specifically directed California to "encourage the development and success of zero-emission vehicles to protect the environment, stimulate economic growth, and improve the quality of life in the State."[55]

In 2018, Governor Brown also issued EO B-48-18, which launched an eight-year initiative to accelerate the sales of ZEVs through a mix of rebate programs and infrastructure improvements. The EO also sets a new target of five million ZEVs in California by 2030, and includes funding for multiple state agencies to increase EV charging infrastructure and provide purchase rebates/incentives.

In furtherance of the State's ZEV penetration goals, in February 2013, the Governor's Interagency Working Group on Zero-emission Vehicles issued the *2013 ZEV Action Plan: A roadmap toward 1.5 million zero-emission vehicles on California* roadways *by 2025*.[56] The 2013 ZEV Action Plan identifies four broad goals for State government to advance ZEVs: 1)

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[53] Carbon intensity is a measure of the GHG emissions associated with the various production, distribution, and use steps in the "lifecycle" of a transportation fuel.

[54] *POET, LLC v. CARB* (2013) 217 Cal.App.4th 1214.

[55] Executive Order B-16-2012. Available at: https://www.ca.gov/archive/gov39/2012/03/23/news17472/. Accessed: July 2019.

[56] Governor's Interagency Working Group on Zero-emission Vehicles. 2013. Available at: http://opr.ca.gov/docs/Governors_Office_ZEV_Action_Plan_(02-13).pdf. Accessed: July 2019.

Complete needed infrastructure and planning; 2) Expand consumer awareness and demand; 3) Transform fleets; and 4) Grow jobs and investment in the private sector. As part of these goals, some highlighted strategies and actions include: i) supporting ZEV infrastructure planning and investment by private entities; ii) enabling universal access to ZEV infrastructure for California drivers; iii) reducing upfront purchase costs for ZEVs; iv) promoting consumer awareness of ZEVs; and v) helping to expand ZEVs in bus fleets. The Action Plan discusses the challenges of ZEV expansion, which include the need to enable electric vehicle chargers in homes, increase consumer awareness, address up-front costs and operational limitations, and address that ZEVs are not commercially available for all categories of vehicles.

In October 2016, the Governor's Interagency Working Group on Zero-emission Vehicles issued the *2016 ZEV Action Plan: A roadmap toward 1.5 million zero-emission vehicles on California* roadways *by 2025*.[57] This report provides an update on progress toward achieving the 2013 goals and highlights the following four top priorities for the upcoming years: 1) Raise consumer awareness and education about ZEVs; 2) Ensure ZEVs are accessible to a broad range of Californians; 3) Make ZEV technologies commercially viable in targeted applications in the medium-duty, heavy-duty, and freight sectors; and 4) Aid ZEV market growth beyond California. The broad goals to advance ZEV adoption are: i) achieve mainstream consumer awareness of ZEV options and benefits; ii) make ZEVs an affordable and attractive option for drivers; iii) ensure convenient charging and fueling infrastructure for greatly expanded use of ZEVs; iv) maximize economic and job opportunities from ZEV technologies; v) bolster ZEV market growth outside of California; and vi) lead by example by integrating ZEVs into State government. The goals and strategies proposed in the 2013 Action Plan will continue to be implemented; however, additional strategies are proposed to help achieve the new goals, including setting targets to increase home charging stations in multi-unit dwellings and disadvantaged communities and for public transit and school bus electrification. The 2016 Action Plan describes challenges toward achieving the 2025 goal of 1.5 million ZEVs in California, such as that most consumers are still not aware of the benefits of passenger ZEVs and that over 1,000,000 charge points will be needed at homes, workplaces, and public locations but only 11,000 non-home charge points are installed as stated in the 2016 ZEV Action Plan.

In September 2018, the Governor's Interagency Working Group on Zero-Emission Vehicles published the 2018 ZEV Action Plan Priorities Update.[58] This update is the result of Governor Brown's directive to update the 2016 Zero-Emission Vehicle Action Plan to help expand private investment in zero-emission vehicle infrastructure, particularly in low income and disadvantaged communities. The 2018 Priorities Update serves three fundamental purposes: 1) Provide direction to state agencies on the most important actions to be executed in 2018 to enable progress toward the 2025 targets and 2030 Vision; 2) Give stakeholders transparency into the actions state agencies plan to take (or are taking) this year to further the ZEV market; and 3) Create a platform for stakeholder engagement, feedback, and collaboration. As of July 2018, over 410,000 ZEVs have been sold in California, which is approximately 150,000 ZEVs since the publication of the 2016 Action Plan in October 2016.

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[57] Governor's Interagency Working Group on Zero-emission Vehicles. 2016. Available at: https://www.gov.ca.gov/wp-content/uploads/2017/09/2016_ZEV_Action_Plan.pdf. Accessed: May 2019.

[58] Governor's Interagency Working Group on Zero-emission Vehicles. 2018. Available at: http://www.business.ca.gov/Portals/0/ZEV/2018-ZEV-Action-Plan-Priorities-Update.pdf. Accessed: July 2019.

California is incentivizing the purchase of ZEVs through implementation of the Clean Vehicle Rebate Project (CVRP), which is administered by a non-profit organization (The Center for Sustainable Energy) for CARB and currently subsidizes the purchase of passenger near-zero and zero emission vehicles as follows:

- Hydrogen Fuel Cell Electric Vehicles: $5,000;
- Battery Electric Vehicles: $2,500;
- Plug-In Hybrid Electric Vehicles: $1,500; and
- Neighborhood Electric Vehicles and Zero Emission Motorcycles: $900.

In March 2017, CARB received Volkswagen's (VW) first 30-month ZEV Investment Plan (Plan).[59] This Plan is required by California's partial settlement with VW resulting from VW's use of illegal devices in its 2.0-liter (2.0L) diesel cars sold in the State from model years 2009 to 2015. The Plan describes how VW is proposing to spend the first $200 million in California on ZEV charging infrastructure (including the development and maintenance of ZEV charging stations), public awareness, increasing ZEV access, and a green city demonstration. In June 2017, Electrify America (a subsidiary of VW) provided CARB with additional information on the Plan.[60] CARB approved the first of the four plans in July 2017.[61]

In its 2014 First Update, CARB recognized that the light-duty vehicle fleet "will need to become largely electrified by 2050 in order to meet California's emission reduction goals."[62] Accordingly, CARB's ACC program – summarized above – requires about 15 percent of new cars sold in California in 2025 to be a plug-in hybrid, battery electric or fuel cell vehicle.[63]

Other statewide and regional initiatives that spur ZEV uptake include the following:

CARB currently subsidizes the purchase of passenger near-zero and zero emission vehicles, and provides access to high-occupancy vehicle (HOV) lanes to ZEV drivers.

The VW settlement will result in $800 million in ZEV projects in California over the next ten years, with a focus on increasing public awareness and infrastructure in the first funding cycle.[64]

The CalGreen standards require new residential and non-residential construction to be pre-wired to facilitate the future installation and use of electric vehicle chargers (see Section

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[59] VOLKSWAGEN, Group of America. 2017. California ZEV Investment Plan: Cycle 1, March 8, 2017. Available at: https://www.arb.ca.gov/msprog/vw_info/vsi/vw-zevinvest/documents/vwinvestplan1_031317.pdf. Accessed: July 2019.

[60] Electrify America. 2017. Supplement to the California ZEV Investment Plan, Cycle 1, June 29, 2017. Available at: https://www.arb.ca.gov/msprog/vw_info/vsi/vw-zevinvest/documents/california_zev_investment_plan_supplement_062917.pdf. Accessed: July 2019.

[61] CARB, 2017. CARB Approves $200 Million VW Zero-Emission Vehicle Investment in California, July, 27. Available at: https://ww2.arb.ca.gov/news/carb-approves-200-million-vw-zero-emission-vehicle-investment-california. Accessed: July 2019.

[62] CARB, First Update to the Climate Change Scoping Plan: Building on the Framework (May 2014), p. 48.

[63] Id. at p. 47.

[64] ARB, Volkswagen Settlement – California ZEV Investments webpage, available at: https://www.arb.ca.gov/msprog/vw_info/vsi/vw-zevinvest/vw-zevinvest.htm. Accessed: July 2019.

4.106.4 and Section 5.106.5.3 of 2016 CalGreen standards for the residential and non-residential pre-wiring requirements, respectively).

In January 2017, three of California's largest utilities submitted proposals to the California Public Utilities Commission (CPUC) to electrify the State's transportation sector through more than $1 billion in investments:

- Southern California Edison (SCE) filed an application to expand electric transportation in its service area. Some of SCE's proposals include monetary rewards to rideshare drivers who use an electric vehicle, additional fast charge infrastructure at targeted locations within the region, and rates that are designed to incentivize electric vehicle adoption.[65]
- Pacific Gas and Electric (PG&E) submitted an application that aims to expand the electrification of medium- and heavy-duty vehicle fleets, expand fast-charging stations that can refuel EVs in 20-30 minutes, and explore new uses for vehicle electrification.[66]
- San Diego Gas & Electric (SDG&E) submitted an application to install tens of thousands of charging stations in its service area to boost the transition to zero-emission vehicles, trucks, shuttles and delivery fleets.[67]

As part of San Diego Forward: The Regional Plan, SANDAG also is focused on increasing the number of electric vehicle charging stations. In many instances, the additional chargers would create the opportunity to increase the electric range of plug-in electric vehicles (PEVs), reducing vehicle miles traveled (VMT) that produce tail-pipe emissions.[68] In 2014, SANDAG completed a regional readiness plan for plug-in electric vehicles and charging stations. In February 2016, an expanded plan that addressed readiness for electricity alongside all alternative fuels, the San Diego Regional Alternative Fuel Readiness Plan, was completed. This plan highlighted barriers to alternative fuel development and recommendations for the future. SDG&E established the Electric Vehicle-Grid Integration Pilot Program (Power Your Drive Program) as a pilot program in January 2016 after approval by the CPUC. This Program was designed to increase adoption of EVs and integrates EV charging through an hourly rate. The Program has a goal of installing up to 3,500 EV charging stations at apartments, condominiums, and places of work. The most recent report on the Program's progress notes that 238 customers have signed Site Agreements equating to more than 2,746 charging ports.[69]

2.2.2.9 Water

In January 2014, Governor Brown signed EO B-29-15, which directed the State Water Resources Control Board to impose restrictions to reduce residential potable urban water

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[65] SCE, Application of Southern California Edison Company (U 338-E) for Approval of Its 2017 Transportation Electrification Proposals (January 20, 2017).

[66] PG&E, In the Matter of the Application of Pacific Gas and Electric Company for Approval of its Senate Bill 350 Transportation Electrification Program (January 20, 2017).

[67] SDG&E, Application of San Diego Gas & Electric Company (U902E) for Approval of SB 350 Transportation Electrification Proposals (January 20, 2017).

[68] SANDAG, San Diego Forward: The Regional Plan (October 2015). Available at: http://sdforward.com/pdfs/Final_PDFs/The_Plan_combined.pdf. Accessed: July 2019.

[69] SDG&E. 2019. Electric Vehicle-Grid Integration Pilot Program ("Power Your Drive") Fifth Semi-Annual Report (Corrected) of San Diego Gas & Electric Company (U902-E). Available at: https://www.sdge.com/sites/default/files/regulatory/FINAL%20September%202018%20Power%20Your%20Drive%20Semi-Annual%20Rpt_0.pdf. Accessed: July 2019.

usage; to implement water efficiency measures at commercial, industrial, and institutional properties; and to prohibit irrigation with potable water for certain uses. In addition, this directed the California Department of Water Resources to lead a statewide initiative to replace laws and ornamental turfs with drought tolerant landscapes.

Pursuant to the EO B-29-15, water-related standards were adopted as amendments to the 2013 CalGreen Code and carried over into the 2016 code.

2.2.2.10 Solid Waste Diversion

The California Integrated Waste Management Act of 1989, as modified by AB 341 (Chesbro, 2011), requires each jurisdiction's source reduction and recycling element to include an implementation schedule that shows: (1) diversion of 25 percent of all solid waste by January 1, 1995, through source reduction, recycling, and composting activities; (2) diversion of 50 percent of all solid waste on and after January 1, 2000; and (3) source reduction, recycling and composting of 75 percent of all solid waste on or after 2020, and annually thereafter. The California Department of Resources Recycling and Recovery (CalRecycle) is required to develop strategies, including source reduction, recycling, and composting activities, to achieve the 2020 goal.

CalRecycle published a discussion document, entitled *California's New Goal: 75 Percent Recycling,* which identified concepts that would assist the State in reaching the 75 percent goal by 2020. Subsequently, in August 2015, CalRecycle released the *AB 341 Report to the Legislature*, which identifies five priority strategies for achievement of the 75 percent goal: (1) moving organics out of landfills; (2) expanding recycling/ manufacturing infrastructure; (3) exploring new approaches for State and local funding of sustainable waste management programs; (4) promoting State procurement of post-consumer recycled content products; and, (5) promoting extended producer responsibility.

2.2.3 Regional

2.2.3.1 SANDAG's Regional Transportation Plan/Sustainable Communities Strategy

As previously discussed, SB 375 requires SANDAG to incorporate a Sustainable Communities Strategy into its RTP that achieves the GHG emission reduction targets set by CARB. SANDAG's Sustainable Communities Strategy was first included in the 2050 Regional Transportation Plan & Sustainable Communities Strategy (RTP/SCS), which was adopted by SANDAG in October 2011. The original plan has since been superseded by the RTP/SCS adopted by SANDAG's Board in 2015, San Diego Forward: The Regional Plan.

In general, the goals and policies of the Sustainable Communities Strategy that reduce VMT (and result in corresponding GHG emission reductions) focus on transportation and land use planning that include locating residents closer to where they work and play, and designing communities so there is access to high quality transit service and non-vehicular modes of transportation. The Sustainable Communities Strategy adopted by SANDAG is expected to reduce per capita transportation emissions by 15% by 2020 and by 21% by 2035, as compared to 2005 baseline levels.

In December 2015, CARB accepted SANDAG's determination that the Sustainable Communities Strategy would meet the region's GHG reduction targets per Government Code Section 65080(b)(2)(J)(ii), as memorialized in CARB's EO G-15-075.

Pursuant to Government Code Section 65080(b)(2)(K), a Sustainable Communities Strategy does not: (i) regulate the use of land; (ii) supersede the land use authority of cities and counties; or (iii) require that a city's or county's land use policies and regulations, including those in a general plan, be consistent with it.

2.2.3.2 San Diego Air Pollution Control District

While CARB is responsible for the regulation of mobile emission sources within the State, local air quality management districts (AQMDs) and air pollution control districts (APCDs) are responsible for enforcing standards and regulating stationary sources. The project area is located within the San Diego Air Basin (SDAB) and is subject to the San Diego Air Pollution Control District (SDAPCD) guidelines and regulations. The SDAPCD has not adopted rules focused on GHGs or emission-based thresholds for GHG under CEQA.

2.2.4 Local

As a state agency, CSU/SDSU is not subject to local land use regulatory/planning documents, ordinances, regulations, policies, rules, fees, or exactions such as those described herein. However, CSU is willing to purchase the project site pursuant to the framework set forth in SDMC Section 22.0908 and the Purchase and Sale Agreement, in order to implement the overriding purpose of the proposed project. In addition, CSU will evaluate the proposed project's consistency with adopted, applicable state and federal regulatory/planning documents; and, though not required by law, CSU also will consider the proposed project's consistency with adopted, applicable local regulatory/planning documents.

2.2.4.1 City of San Diego General Plan

Table CE-1, Issues Related to Climate Change Addressed in the General Plan, which is located in the Conservation Element of the City of San Diego's General Plan[70], identifies multiple City policies that address the reduction of GHG emissions, as well as climate change adaptation. Concepts identified in Table CE-1 of the City's General Plan include, but are not limited to, its overall City of Villages Strategy; creating walkable communities that utilize transit, bicycling and transportation demand management; the use of sustainable energy resources; and water resource and waste management.

2.2.4.2 City of San Diego Climate Action Plan

On January 29, 2002, the San Diego City Council unanimously approved the San Diego Sustainable Community Program. Actions identified include:

1. Participation in the Cities for Climate Protection (CCP) program coordinated through the International Council of Local Environmental Initiatives (ICLEI);
2. Establishment of a 15% GHG reduction goal set for 2010, using 1990 as a baseline; and
3. Direction to use the recommendations of a scientific Ad Hoc Advisory Committee as a means to improve the GHG Emission Reduction Action Plan within the City organization and to identify additional community actions.

In 2005, the City released a Climate Protection Action Plan. And, in December 2015, the City adopted its final Climate Action Plan (CAP).[71] With implementation of the CAP, the City aims to reduce emissions 15% below the baseline to approximately 11.1 (million metric tonne)

[70] City of San Diego. 2008. *City of San Diego General Plan*. Adopted March 10, 2008. Available at: https://www.sandiego.gov/planning/genplan#genplan. Accessed: July 2018.

[71] City of San Diego. 2015. Climate Action Plan. Available at: https://www.sandiego.gov/sites/default/files/final_july_2016_cap.pdf. Accessed: July 2018.

MMT CO_2e by 2020, 40% below the baseline to approximately 7.8 MMT CO_2e by 2030, and 50% below the baseline to approximately 6.5 MMT CO_2e by 2035. It is anticipated that the City would exceed its reduction target by 1.3 MMT CO_2e in 2020, 176,528 MT CO_2e in 2030, and 127,135 MT CO_2e in 2035 with implementation of the CAP.

As provided in CEQA Guidelines Section 15183.5, a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project complies with the requirements in a previously adopted plan or mitigation program under specified circumstances. The CAP meets the requirements set forth in CEQA Guidelines Section 15183.5, whereby a lead agency (e.g., the City of San Diego) may analyze and mitigate the significant effects of GHG emissions at a programmatic level, such as in a general plan, a long-range development plan, or a separate plan to reduce GHG emissions. The CAP quantifies existing GHG emissions as well as projected emissions for the years 2020, 2030, and 2035 resulting from activities within the City's jurisdiction. The CAP also identifies City target emissions levels, below which the citywide GHG impacts would be less than significant. The CAP and its accompanying certified Final Environmental Impact Report (FEIR) also identify and analyze the GHG emissions that would result from the business as usual scenario for the years 2020, 2030, and 2035. The CAP includes a monitoring and reporting program to ensure its progress toward achieving the specified GHG emissions reductions, and specifies 17 actions that, if implemented, would achieve the specified GHG emissions reductions targets. The CAP was adopted in a public process following certification of the FEIR. Subsequent to the adoption of the CAP, the City has also established additional specific measures that if implemented on a project-by-project basis, would further ensure that the City as a whole achieves the specified GHG emissions reduction targets in the CAP.[72]

On July 12, 2016, the City amended the CAP to include a Consistency Review Checklist, which is intended to provide a streamlined review process for the GHG emissions analysis of proposed new development projects that are subject to discretionary review and trigger environmental review pursuant to CEQA.

- Under the City's CAP framework, the CAP Consistency Review Checklist is used to evaluate a project's consistency with the City's goals for the reduction of GHG emissions.[73, 74] The CAP Checklist identifies pertinent strategies from the CAP that need to be assessed and considered at the project level, as enumerated below.
  - Strategy 1: Energy and Water Efficient Buildings
    - Cool/Green Roofs
    - Plumbing Fixtures and Fittings
  - Strategy 3: Bicycling, Walking, Transit & Land Use
    - Electric Vehicle Charging

[72] City of San Diego. 2016. California Environmental Quality Act: Significance Determination Thresholds. Available at: https://www.sandiego.gov/sites/default/files/july_2016_ceqa_thresholds_final_0.pdf. Accessed: July 2019.

[73] City of San Diego. Climate Action Plan. 2015. Available at: https://www.sandiego.gov/sites/default/files/final_july_2016_cap.pdf. Accessed July 2019.

[74] City of San Diego. Climate Action Plan Checklist. 2017. Available at: https://www.sandiego.gov/sites/default/files/city_of_san_diego_cap_checklist.pdf. Accessed July 2019.

- Bicycle Parking Spaces
- Shower Facilities
- Designated Parking Spaces
- Transportation Demand Management Program

(SDSU also has a CAP, which was prepared by the university's Climate Action Planning Council and describes the university's commitment to achieving specified GHG reductions.[75] It contains goals and actions in various emission sectors; however, SDSU's CAP was developed for and is focused on issues specific to the already built-out SDSU main campus located in the La Mesa area. SDSU's CAP is not an applicable document for purposes of the proposed project, which proposes the establishment of a new campus in the Mission Valley area. The SDSU Mission Valley Campus Master Plan Design Guidelines are being prepared in order to ensure that SDSU's leadership on sustainability and stewardship issues is carried forward to this project.)

2.2.4.3 Mission Valley Community Plan

The Mission Valley Community Plan (MVCP) is intended to be a blueprint for future development in Mission Valley, where the proposed project is located. The final draft of the MVCP Update was released on May 31, 2019.[76] The MVCP contains Design Guidelines and Policies for Development to implement the City's CAP, maximize transit ridership, and increase mobility options, among others.

2.2.4.4 City of San Diego Green Building Regulations

In response to CalGreen (discussed in **Section 2.2.2.7**), the City of San Diego adopted its Green Building Regulations (Municipal Code Chapter 14, Article 10), which adopt and incorporate by reference specified provisions of the 2016 CalGreen Code.

2.2.5 Other CEQA Guidance

2.2.5.1 CAPCOA

a) CAPCOA 2008 CEQA & Climate Change White Paper

In January 2008, the California Air Pollution Control Officers Association (CAPCOA) published its *CEQA & Climate Change* white paper.[77] In the white paper, CAPCOA surveyed three options available to CEQA lead agencies for purposes of evaluating the significance of a project's GHG emissions, including identifying no significance thresholds for GHG emissions, setting a zero emissions threshold, or setting a non-zero emissions threshold. As to the non-zero thresholds, CAPCOA's white paper considered two approaches, one grounded in statute and executive order with four possible options, and one grounded in a tiered framework. As for the approach grounded in statute and executive order, CAPCOA identified four threshold concepts:

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[75] San Diego State University. Climate Action Plan for San Diego State University. 2017. Available at: https://sustainable.sdsu.edu/_resources/files/SDSU%20Climate%20Action%20Plan%202017.pdf. Accessed July 2019.

[76] Mission Valley Community Plan. Final Draft. 2019. Available at: https://www.sandiego.gov/planning/community/cpu/missionvalley. Accessed July 2019.

[77] CAPCOA is a non-profit association of the air pollution control officers from all 35 local air quality agencies throughout California.

- Threshold 1.1: AB 32/S-3-05 Derived Uniform Percentage-Based Reduction;
- Threshold 1.2: Uniform Percentage-Based (e.g., 50 percent) Reduction for New Development;
- Threshold 1.3: Uniform Percentage-Based Reduction by Economic Sector; and
- Threshold 1.4: Uniform Percentage-Based Reduction by Region.

For purposes of the tiered framework approach, a project's GHG emissions would result in a less-than-significant impact provided one of the following criteria were achieved: (1) compliance with a general or regional plan in alignment with AB 32; (2) application of a CEQA exemption; (3) inclusion on the "green list;" (4) consistency with a qualified GHG reduction strategy; or (5) demonstration that quantified GHG emissions are less than significant. Tables 4 and 5 of the white paper identified advantages and disadvantages associated with all of the options presented for consideration.

b) CAPCOA 2010 Quantifying Greenhouse Gas Mitigation Measures

In August 2010, CAPCOA published its *Quantifying Greenhouse Gas Mitigation Measures* report, which presents information and analysis regarding the quantification of project-level mitigation of GHG emissions associated with land use, transportation, energy use, and other related project areas. CAPCOA and its contractors conducted an extensive literature review in order to provide reliable and substantiated evidentiary bases for the quantification protocols presented in the report; as such, individual GHG reduction measures are accompanied by "fact sheets" that set forth the relevant parameters for the quantification calculations.

2.2.5.2 Association of Environmental Professionals

a) AEP Beyond 2020 White Paper

In March 2015, the Association of Environmental Professionals (AEP) released its draft *Beyond 2020: The Challenge of Greenhouse Gas Reduction Planning by Local Governments in California* (Beyond 2020) white paper.[78] In the white paper, AEP presented evidence showing that it is infeasible for a local jurisdiction to achieve EO S-3-05's 2050 reduction target (i.e., 80 percent below 1990 levels) absent a real post-2020 State plan of action. As such, AEP recommended assessing project significance in relation to the 2050 reduction target by asking whether a project would "impede substantial progress in local, regional, and State GHG emissions reductions over time toward long-term GHG reduction targets."

b) AEP Beyond 2020 and Newhall White Paper

In April 2016, AEP released its draft *Beyond 2020 and Newhall: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California* (Beyond 2020 and Newhall) white paper. In the white paper, AEP surveyed the following significance threshold concepts for utilization in CEQA-oriented GHG emissions analysis: consistency with qualified GHG reduction plans; bright line values; efficiency metrics; hybrid metrics that separate transportation and non-transportation emissions; best management practices; regulatory compliance; and percent reductions from business as usual. In doing so, AEP identified the present circumstances as a "transitional period" due to the absence of comprehensive State planning for post-2020, non-legislatively adopted, statewide targets.

[78] AEP is a non-profit association of public and private sector professionals with a common interest in serving the principles underlying CEQA.

3. SIGNIFICANCE THRESHOLDS

3.1 CEQA Guidelines on GHG Emissions

In 2007, SB 97 was enacted and directed OPR and the California Natural Resources Agency to prepare amendments to the CEQA Guidelines addressing the analysis of GHG emissions under CEQA. Following formal rulemaking, a series of amendments to the CEQA Guidelines were adopted to provide the general framework for the analysis of GHG emissions, and became effective in 2010. The amendments do not provide a mandatory, quantitative rubric for GHG emissions analysis, but instead provide general guidance and recognize long-standing CEQA principles regarding the discretion afforded to lead agencies where supported by substantial evidence. More specifically, CEQA Guidelines Section 15064.4(a) recognizes that the "determination of the significance" of GHG emissions "calls for careful judgment by the lead agency" in accordance with the more general provisions of CEQA Guidelines Section 15064; each agency "shall have discretion to determine" whether to conduct quantitative or qualitative analysis, provided its determination is supported by substantial evidence. Section 15064.4 was most recently amended by OPR and the California Natural Resources Agency in December 2018.

The analysis provided in this report evaluates the significance of the proposed project's GHG emissions by reference to the following questions from Section VIII, Greenhouse Gases, of Appendix G of the CEQA Guidelines:

Threshold 1. Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Threshold 2. Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?

3.2 Other Guidance

Neither the SDAPCD nor the City of San Diego has adopted numeric emission-based thresholds for GHG emissions under CEQA. The City's CEQA Significance Determination Thresholds (July 2016) state that project-level significance is determined through the CAP Checklist, as discussed above. The OPR CEQA and Climate Change Advisory discussion draft[79], published in December 2018, describes the latest updates to the CEQA Guidelines finalized in December 2018. This draft discusses the discretion of selecting and developing appropriate thresholds of significance to analyse a project's environmental impacts. Amongst these thresholds is consistency with relevant regulations, plans, policies, and regulatory programs. The City of San Diego's CAP Checklist is a forward-looking document, including strategies to reduce GHG emissions to achieve the 2020 and 2035 targets, and maintain a trajectory to meet its proportional share of the 2050 State target identified in EO S-3-05. As such, consideration of the CAP Checklist below is consistent with the City's CEQA Significance Determination Thresholds and OPR's discussion draft document.

3.3 Project Approach to Significance

This report, relative to Threshold 1, quantifies the proposed project's GHG emissions during operation and construction. This report, relative to Threshold 2, evaluates the proposed

[79] OPR. 2018. CEQA and Climate Change Advisory. Available at: http://opr.ca.gov/docs/20181228-Discussion_Draft_Climate_Change_Adivsory.pdf. Accessed: July 2019.

project for consistency with applicable plans related to GHG emissions, including the CAP Checklist as stated in the City's CEQA Significance Determination Thresholds.

4. GHG EMISSIONS INVENTORY FOR PROJECT WITHOUT DESIGN FEATURES AND EXISTING CONDITION

This section describes the methodology that Ramboll US Corporation (Ramboll) used to develop the GHG emission inventories associated with the proposed project, which include one-time emissions (construction emissions and emissions due to vegetation changes), and operational emissions. Sub-categories of GHG operational emissions include: **area sources, energy use**, **water supply and wastewater**, **solid waste,** and **mobile sources**. **Table 1-1** summarizes the land uses proposed for the project area and the related modeling terminology at full build-out.

4.1 Measurement, Resources and Existing Condition

4.1.1 Units of Measurement: Tonnes of CO_2 and CO_2e

In this report, the term "GHGs" includes gases that contribute to the natural greenhouse effect, such as CO_2, CH_4, N_2O, and water, as well as gases that are only man-made and that are emitted through the use of modern industrial products, such as HFCs and chlorofluorocarbons (CFCs). GHG emissions are typically measured in terms of mass of CO_2e. CO_2e are calculated as the product of the mass of a given GHG and its specific GWP, as described in **Section 2.1**. GWPs of 25 and 298 were used for CH_4 and N_2O, respectively, for this analysis. In many sections of this report, including the final summary sections, emissions are presented in units of CO_2e either because the GWPs of CH_4 and N_2O were accounted for explicitly, or the CH_4 and N_2O are assumed to contribute a negligible amount of GWP when compared to the CO_2 emissions from that particular emissions category.

In this report, a tonne refers to MT (1,000 kilograms). Additionally, exact totals presented in all tables and report sections may not equal the sum of components due to independent rounding of numbers.

4.1.2 Resources

4.1.2.1 CalEEMod®

Ramboll primarily utilized the California Emissions Estimator Model (CalEEMod®) version 2016.3.2[80] to assist in quantifying the GHG emissions in the inventories presented in this report for the proposed project. CalEEMod® provides a platform to calculate both construction emissions and operational emissions from a land use development project. It calculates total or annual GHG emissions. Specifically, the model aids the user in the following calculations:

- One-time short-term construction emissions associated with site preparation, demolition, grading, utility installation, building, coating, and paving from off-road construction equipment, and on-road mobile equipment associated with workers, vendors, and hauling.
- One-time vegetation sequestration changes, such as permanent vegetation land use changes and new tree plantings.
- Operational emissions associated with the fully built out land use development, such as on-road mobile vehicle traffic generated by the land uses, off-road emissions from

[80] SCAQMD. 2018. California Emissions Estimator Model®. Available at: http://www.CalEEMod.com/. Accessed: July 2019.

landscaping equipment, natural gas usage in the buildings, electricity usage in the buildings, water usage by the land uses, and solid waste disposal by the land uses.

CalEEMod® is a statewide program designed to calculate both criteria pollutant and GHG emissions from development projects in California developed under the auspices of the South Coast Air Quality Management District (SCAQMD), with input from other California air districts, and is currently supported by numerous lead agencies for use in quantifying the emissions associated with development projects undergoing environmental review. CalEEMod® utilizes widely accepted models for emission estimates combined with appropriate default data that can be used if site-specific information is not available. These models and default estimates use sources such as the USEPA AP-42 emission factors,[81] CARB's on-road and off-road equipment emission models such as the EMission FACtor model (EMFAC) and the Emissions Inventory Program model (OFFROAD), and studies commissioned by California agencies such as the California Energy Commission (CEC) and CalRecycle.

As mentioned above, CalEEMod® is based upon the CARB-approved OFFROAD and EMFAC models. OFFROAD[82] is an emission factor model used to calculate emission rates from off-road mobile sources (e.g., construction equipment, agricultural equipment). The off-road diesel emission factors used by CalEEMod® are based on the CARB OFFROAD2011 program. EMFAC is an emission factor model used to calculate emissions rates from on-road vehicles (e.g., passenger vehicles). The emission factors used by CalEEMod® are based on the CARB EMFAC2014 program.[83, 84]

In addition, CalEEMod® contains default values and existing regulation methodologies to use in each specific local air district region. Appropriate statewide default values can be utilized if regional default values are not defined. Ramboll used default factors for the San Diego county area (within the SDAPCD's jurisdiction) for the emissions inventory, unless otherwise noted in the methodology descriptions below.

4.1.2.2 Other Resources

Ramboll directly or indirectly relied on emissions estimation guidance from government-sponsored organizations, government-commissioned studies of energy use patterns, project-specific studies (e.g., Fehr and Peers' Transportation Impact Analysis[85]), and emission estimation software as described above. In cases noted below, third-party studies were also relied upon to support analyses and assumptions made outside of the approach described above.

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[81] The USEPA maintains a compilation of Air Pollutant Emission Factors and process information for several air pollution source categories. The data is based on source test data, material balance studies, and engineering estimates. Available at: https://www.epa.gov/air-emissions-factors-and-quantification/ap-42-compilation-air-emissions-factors. Accessed: July 2019.

[82] CARB. 2011. Off Road Mobile Source Emission factors. Available at: http://www.arb.ca.gov/msei/msei.htm. Accessed: July 2019.

[83] CARB. 2015. Mobile Source Emissions Inventory. Available at: https://www.arb.ca.gov/msei/categories.htm. Accessed: July 2019.

[84] EMFAC2014 was used for consistency with CalEEMod version 2016.3.2.

[85] Fehr & Peers. 2019. Transportation Impact Analysis of the SDSU Mission Valley Campus Master Plan Project in San Diego, California.

Details regarding the specific methodologies used by CalEEMod® can be found in the CalEEMod® User's Guide and associated appendices.[86] The CalEEMod® output files are provided for reference in **Appendix B-1 and Appendix B-2**to this report.

4.1.3 Indirect GHG Emissions from Electricity Use

Project-related electricity use results in indirect emissions, due to electricity generation activities occurring at off-site power plant locations. For the proposed project, electrical power will be supplied by San Diego Gas & Electric (SDG&E). The indirect GHG emissions created as a result of project-related electricity use are calculated through application of the following methodology.

For purposes of electricity use, intensity factors are GHG emission rates from a given source relative to the energy generation activities, and are expressed in terms of the amount of GHG released per megawatt of energy produced. The default electricity intensity factors for SDG&E in CalEEMod® for CO_2, CH_4, and N_2O are 720.49, 0.029, and 0.00617 pounds (lbs) of GHG per megawatt-hour, respectively. The CO_2 default factor is based on the 2009 emission factor listed in CARB's Local Government Operations Protocol.[87] The CH_4 and N_2O default factors are based on CARB's and E-Grid values. SDGE's PUP reports show that renewable energy sources do not result in any new CO_2 emissions.

While CalEEMod®'s emission factors for CH_4 and N_2O conservatively were used for this project, CalEEMod®'s CO_2 intensity factor was modified based on SDG&E's 2017 Corporate Sustainability Report, to account for the Renewables Portfolio Standard's (RPS) requirement for 2030 (i.e., 60 percent RPS). The 2016 and 2017 mix of renewable and non-renewable energy sources in SDG&E's energy supply were both used to calculate the intensity factors for SDG&E's non-renewable energy. (For disclosure purposes, SDG&E's current RPS, as of 2017, is 45 percent.)[88] The SDG&E data provides the basis for the estimate of the intensity factors for the non-renewable energy; and, this data is used to project what the intensity factors will be when the proposed project reaches build-out in 2037. The intensity factor for CO_2 is calculated by multiplying the percentage of energy delivered by SDG&E from non-renewable energy resources with the intensity factor for non-renewable energy as calculated (see **Section 4.3.2** below).

4.1.4 Existing Condition

In addition to estimating project-related GHG emissions from construction and operational buildout, this report also estimates GHG emissions associated with the "Existing Condition," which entails the operation of the San Diego County Credit Union Stadium (formerly, Qualcomm Stadium) presently located on the project site. Information regarding the operational attributes and characteristics of the existing stadium, including a summary of existing events, is available in Section 2.0, Project Description, of the project's EIR.

[86] SCAQMD. 2018. California Emissions Estimator Model User's Guide. Version 2016.3.2. Available at: http://www.CalEEMod.com/. Accessed: July 2019.

[87] CARB. 2010. Local Government Operations Protocol. Available at: https://www.arb.ca.gov/cc/protocols/localgov/pubs/lgo_protocol_v1_1_2010-05-03.pdf. Accessed: July 2018.

[88] SDG&E. 2017 Corporate Sustainability Report. Available at: https://www.sempra.com/sites/default/files/content/files/node-page/file-list/2018/2017-corporate-sustainability-report-sempra.pdf. Accessed: July 2019.

4.2 One-Time Emissions

One-time emissions are those emissions that are not reoccurring over the life of the project. This includes emissions associated with construction and emissions associated with land use changes.

4.2.1 Construction Emissions

This section describes the estimation of GHG emissions from construction activities at the project site. While the exact construction schedule and equipment mix may vary from the current analysis, the GHG emissions are not expected to be higher than that calculated given the conservative assumptions included in this analysis.

The major construction phases included in this analysis are:

- Demolition: involves tearing down of buildings or structures.
- Grading: involves the cut and fill of land to ensure the proper base and slope for the construction foundation.
- Paving: involves the laying of concrete or asphalt such as in parking lots or roads.
- Building Construction: involves the construction of structures and buildings.
- Architectural Coating: involves the application of coatings to both the interior and exterior of buildings or structures.
- Off-site Improvements: involves the construction of off-site improvements.

GHG emissions from these construction phases are largely attributable to fuel use from construction equipment and worker commuting vehicles.[89]

Ramboll primarily used CalEEMod® version 2016.3.2 and post-processing calculations to quantify the construction emissions. The construction schedule and off-road equipment list are project-specific estimates; the off-road equipment specifications are based on model defaults. The modeled construction schedule is shown in **Table 4-1a**.

The construction-related equipment mix assumptions are shown in **Table 4-1b. Table 4-1c** presents the project-specific worker, vendor, and hauling trips for 2020-2023, while **Table 4-1d** includes CalEEMod® default worker and vendor trips for 2024-2037. The project-specific demolition waste volumes are shown in **Table 4-1e**. The project construction emissions were modeled in CalEEmod® (see **Appendix B-1 and Appendix B-2**) and post-processed (see **Appendix C)** to determine the annual emissions in each year of construction.

4.2.1.1 Emissions from Construction Equipment

The emission calculations associated with construction equipment are from off-road equipment engine use based on the equipment list and phase length, and on-road vehicle trips and phase length.

Since the majority of the off-road construction equipment used for construction projects are diesel fueled, CalEEMod® assumes all of the equipment operates on diesel fuel. The calculations associated with this screen include the running exhaust emissions from off-road

[89] In addition to the worker and vendor trips, haul truck trips were added to the demolition phase to account for the truck trips hauling waste.

equipment. Since the equipment is assumed to be diesel, there are no starting emissions associated with the equipment, as these are *de minimis* for diesel-fueled equipment. CalEEMod® calculates the exhaust emissions based on CARB's OFFROAD2011 methodology using the equation presented below.[90]

$$\text{Emissions}_{\text{Diesel}} = \sum_i (\text{EF}_i \times \text{Pop}_i \times \text{AvgHP}_i \times \text{Load}_i \times \text{Activity}_i)$$

Where:

EF	=	Emission factor in grams per horsepower-hour (g/bhp-hr) as processed from OFFROAD2011
Pop	=	Population, or the number of pieces of equipment
AvgHp	=	Maximum rated average horsepower
Load	=	Load factor
Activity	=	Hours of operation
i	=	equipment type

Project construction would include temporary on-site grinding equipment during demolition. The combustion emissions from this equipment were calculated using CalEEMod®.

The GHG emissions associated with off-road construction equipment are shown in **Table 4-2a**.

4.2.1.2 Emissions from On-Road Construction Trips

Construction generates on-road vehicle GHG emissions from personal vehicles for worker and vendor commuting, and trucks for soil and material hauling. These emissions are based on the number of trips and VMT, along with emission factors from EMFAC2014. Project-specific hauling trip rates for soil and material handling are shown in **Table 4-1c**. Construction of the project is expected to generate 114,680 total hauling trips during the grading and demolition phases. The emissions from mobile sources were calculated in CalEEMod® with the trip rates, trip lengths, and emission factors for running from EMFAC2014 as follows:[91]

$$\text{Emissions}_{\text{pollutant}} = \text{VMT} * \text{EF}_{\text{running, pollutant}}$$

Where:

$\text{Emissions}_{\text{pollutant}}$	= emissions from vehicle running for each pollutant
VMT	= vehicle miles traveled
$\text{EF}_{\text{running, pollutant}}$	= emission factor for running emissions

Starting and idling emissions were also calculated in CalEEMod® by multiplying the number of trips by the respective emission factor for each pollutant. Project-specific on-road construction trip emissions were calculated independently using CalEEMod® derived emission factors. A separate CalEEMod® run (see **Appendix B-3**) was conducted to determine the

[90] SCAQMD. 2018. California Emissions Estimator Model® User's Guide, Appendix A. Available at: http://www.CalEEMod.com/. Accessed: July 2019.

[91] Ibid.

emission factors for each trip type in the years (2020 to 2023) where project-specific construction trip data was provided. The output from this CalEEMod® run was used to calculate vehicle trip emission factors as shown in **Table C-1** in **Appendix C**. Construction emissions from on-road vehicles associated with construction are shown in **Table 4-2b**.

4.2.1.3 Total Construction Emissions

The total emissions from construction are summarized in **Table 4-2c**. Total GHG emissions from all phases for off-road and on-road emissions are 23,997 and 8,306 MT CO_2e, respectively. Total GHG emissions from all construction activities are 32,303 MT CO_2e. When amortized over a 30-year project lifetime, the construction GHG emissions are 1,077 MT CO_2e/year.[92] Detailed calculations for monthly GHG on-road emissions for calendar years 2020 to 2023 are shown in **Table C-2** in **Appendix C**. Detailed emission inventory from the CalEEMod® output files are included in **Appendix B-1 and Appendix B-2.**

This analysis assumes that implosion would be used for stadium demolition. If implosion is not used, some additional pieces of construction equipment would be required during the demolition phase. However, total GHG emissions from all construction equipment over the entire construction period (2020-2037) is expected to be similar to those presented in **Table 4-2c**.

4.2.2 Vegetation Changes

This section presents the calculation of the positive and negative GHG emissions associated with vegetation removal and re-vegetation at the site. Permanent vegetation changes that occur as a result of land use development constitute a one-time change in the carbon sequestration capacity of a project site. In this case, developed land will be converted to different land uses with landscaped areas with trees. This will result in an overall net gain in carbon sequestration once the vegetation reaches a steady state (i.e., new vegetation replaces dying vegetation). Consequently, vegetation change results in a GHG emissions decrease. Landscaped areas are included in the vegetation change estimate.

4.2.2.1 Vegetation Change Emissions

CalEEMod® was used to calculate GHG emissions associated with the vegetation activities of land use change and the planting of new trees, as according to the IPCC protocol for vegetation. Overall Change in Sequestered CO_2e can be calculated with this equation: [93]

$$\text{Overall Change in Sequestered CO2} = \sum_{i}\left((\text{SeqCO}_2)_i \times \text{area}_i\right) - \sum_{j}\left((\text{SeqCO}_2)_j \times \text{area}_j\right)$$

Where:

$SeqCO_2$	=	mass of sequestered CO_2 per unit area [MT CO_2e/acre]
area	=	area of land for specific land use type [acre]
i	=	index for final land use type

[92] This approach to one-time construction and vegetation change GHG emissions is based on the GHG Threshold Working Group Meeting #13 Minutes from August 26, 2009. Available at: http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-13/ghg-meeting-13-minutes.pdf?sfvrsn=2. Accessed: July 2019.

[93] SCAQMD. 2018. California Emissions Estimator Model User's Guide, Appendix A. Available at: http://www.CalEEMod.com/. Accessed: July 2019.

j = index for initial land use type

Conservatively, there is no reduction in GHG emissions associated with preservation of a land use. The vegetation changes (additional open space and new trees) result in a net gain in carbon sequestration. The detail is shown in **Tables 4-2d** and **4-2e**.

4.3 Annual Operational Emissions

This section describes the estimation of GHG emissions from operational activities at the project site. The operational emissions were modeled in CalEEMod® using three separate runs for the operational year selected (2035) to facilitate the processing in CalEEMod® (see **Appendix B-4**). This year was selected based on the expected operational buildout year of 2037 and model limitation to year 2035 as described in more detail in **Section 1.3**. As previously discussed, utilization of year 2035 is conservative and not expected to under-estimate the project's GHG emissions.

4.3.1 Area Sources

Area sources in CalEEMod® are direct sources of GHG emissions. The area source GHG emissions included in this analysis result from landscaping-related fuel combustion sources, such as lawn mowers. Emissions from fireplaces are calculated assuming that 5% of dwelling units have natural gas fireplaces and that there are no wood-burning fireplaces or woodstoves, consistent with the project design. GHG emissions due to natural gas combustion in buildings from other sources are excluded from this section since they are included in the emissions associated with building energy use.

The resulting GHG emissions from area sources for the Existing Condition are minimal and for the project are calculated to be 240 MT CO_2e/year as shown in **Table 4-3.** This includes the PDF relating to residential hearths described in **Section 5**.

4.3.2 Energy Use

GHGs are emitted from buildings as a result of activities for which electricity and natural gas are typically used as energy sources. Combustion of any type of fuel emits CO_2 and other GHGs directly into the atmosphere; these emissions are considered direct emissions associated with a building. GHGs are also emitted during the generation of electricity from fossil fuels; these emissions are considered to be indirect emissions. Climate Zone 13 was selected based on the CEC forecast climate zone map shown in the CalEEMod® User's Guide.

In California, Title 24 governs energy consumed by the building envelope, including its mechanical systems, and some types of fixed lighting.[94] These "regulated loads" are not the only source of building-related energy consumption. "Unregulated loads," which are also sometimes referred to as "plug-in loads," also contribute to the total energy demand/consumption of the built environment. The project (without PDFs) analysis assumes that the project's residential and non-residential land uses accord to the 2016 Building Energy Efficiency Standards, as that code cycle became effective on January 1, 2017 as described in more detail in **Section 1.3**.

To calculate the total residential building energy input for the project (i.e., electricity and natural gas use), Ramboll utilized default values provided in CalEEMod®, which are based on

[94] Title 24, Part 6, of the California Code of Regulations: California's Energy Efficiency Standards for Residential and Nonresidential Buildings. Available at: http://www.energy.ca.gov/title24/. Accessed: July 2019.

the Residential Appliance Saturation Survey (RASS).[95] To calculate the total non-residential building energy input for the project, Ramboll utilized default values provided in CalEEMod®, which are based on the Commercial End-Use Survey (CEUS).[96] The energy usage for the Stadium was based on energy data from the Qualcomm stadium. The Qualcomm stadium energy rates were normalized by attendance at the stadium to develop the existing SDCCU stadium and project stadium energy use rates. The energy use rates input to CalEEMod® for the proposed project stadium are shown in **Table 4-4a** and for the existing SDCCU Stadium are shown in **Table 4-4b.**

Table 4-4c identifies the emission factors for electricity (i.e., pounds of CO_2 per megawatt-hour delivered) used in this analysis. As illustrated in **Table 4-4c**, an SDG&E-specific emission factor that accounts for the 60 percent RPS required by 2030, as discussed in **Section 4.1.3**, was calculated.

Total GHG emissions from the electricity demand and natural gas consumption of residential and non-residential buildings (without application of the PDFs) were calculated to be 17,528 MT CO_2e/year total, as shown in **Table 4-4d**.

4.3.3 Mobile Sources

The GHG emissions associated with on-road mobile sources are generated from residents, workers, customers, and delivery vehicles visiting the land use types in the project. The GHG emissions associated with on-road mobile sources include running and starting exhaust emissions. Running emissions are dependent on VMT. Starting emissions are associated with the number of starts or time between vehicle uses and the assumptions used in determining these values are described below. Ramboll calculated mobile source emissions using trip rates and trip length information based on analyses conducted by Fehr & Peers (F&P), which were derived in accordance with California State University Transportation Impact Study Manual, the City of San Diego Traffic Impact Study Manual, the San Diego Land Development Code, the San Diego Association of Governments (SANDAG) Regional Traffic Demand Forecast Model, the City of San Diego's California Environmental Quality Act Significance Determination Thresholds, and regionally accepted traffic study guidelines published by the San Diego Regional Traffic Engineers (SANTEC)/Institute of Transportation Engineers (ITE).

The analysis includes the benefit of reductions from some adopted regulatory programs, which are accounted for as follows:

- AB 1493 ("the Pavley Standard") required CARB to adopt regulations by January 1, 2005, to reduce GHG emissions from non-commercial passenger vehicles and light-duty trucks of model year 2009 and thereafter. CalEEMod® and EMFAC2014 include emission reductions for non-commercial passenger vehicles and light-duty trucks of model year 2017 – 2025.
- The ACC program adopted by CARB, introduced in 2012, combines the control of smog, soot causing pollutants and GHG emissions into a single coordinated package of

[95] A detailed explanation how the RASS data was processed for use in CalEEMod® is available in CalEEMod® User's Guide Appendix E.

[96] A detailed explanation how the CEUS data was processed for use in CalEEMod® is available in CalEEMod® User's Guide Appendix E.

requirements for model years 2015 through 2025. CalEEMod® and EMFAC2014 includes reductions associated with this regulation that are represented in this analysis.

- The USEPA/NHTSA advanced fuel economy and GHG standards (Phase 1) were adopted in 2011 for medium and heavy-duty trucks for model years 2014-2018.[97] This Heavy-Duty National Program is intended to reduce fuel use and GHG emissions from medium- and heavy-duty vehicles, semi-trucks, pickup trucks and vans, and all types and sizes of work trucks and buses in between. CalEEMod® and EMFAC 2014 include reductions associated with this regulation that are represented in this analysis.
- The USEPA/NHTSA advanced fuel economy and GHG standards (Phase 2) were adopted in 2016 for medium- and heavy-duty trucks for model years 2018 and beyond.[98] The Phase 2 program includes technology-advancing standards that substantially reduce GHG emissions and fuel consumption resulting in an ambitious, yet achievable, program that will allow manufacturers to meet the applicable standards over time, at reasonable cost, through a mix of different technologies. The Phase 2 program's standards will be phased in, beginning with model year 2021 and culminating with model year 2027.[99]

4.3.3.1 Estimating Mobile Source Emissions

The information presented in F&P's traffic impact analysis was used to derive the inputs for CalEEMod®. CalEEMod® requires the input of trip generation rates (weekday, Saturday, and Sunday) and average trip lengths for each different land use type in the project (e.g., condominium/townhouse). The following sections describe the methodology to derive the necessary inputs.

a) Trip Generation Rates

The project trips were based on F&P data. The trips for the project are shown in **Table 4-5a**; existing condition trips are shown in **Table 4-5b**.

Total trips were allocated to each land use in the analysis by using the trip generation rates by land use as provided in F&P's report. In addition, an eleven percent mixed-use reduction and seven percent transit/bike/walk reduction were applied to cumulative (i.e., primary) trips to account for the expected public transportation services for the project and surrounding land uses, consistent with F&P's traffic study. The project weekend trip rates were based on F&P's Saturday trip rates.

b) Trip Lengths

The project trip length was based on the F&P VMT analysis. The trip length for use in CalEEMod® was calculated as the vehicle miles travelled divided by the project trips to result in one overall average trip length for the project. The results of these calculations are shown in **Tables 4-5a and 4-5b**.

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[97] USEPA, Office of Transportation and Air Quality. 2011. Available at: https://www.gpo.gov/fdsys/pkg/FR-2011-09-15/pdf/2011-20740.pdf. Accessed: July 2019.

[98] USEPA, Office of Transportation and Air Quality. 2016. Available at: https://www.gpo.gov/fdsys/pkg/FR-2016-10-25/pdf/2016-21203.pdf. Accessed: July 2019.

[99] The emission reductions attributable to Phase 2 of the regulations for medium- and heavy-duty trucks were not included in the project's emissions inventory due to the difficulty in quantifying the reductions. Excluding these reductions results in a more conservative (i.e., higher) estimate of emissions for the project.

c) Fleet Mix

The CalEEMod® default fleet mix (based on EMFAC2014 vehicle class populations) was retained for the project land uses.

d) Summary of CalEEMod® Inputs

The assumptions input into CalEEMod® are shown in **Tables 4-5a and 4-5b**. In addition to the information as described above, the trip type is shown as 100% primary, consistent with the derivation and calculation of trip rates and trip lengths. Because the differences in trip length are already accounted for in F&P's data and how the trip rates and trip lengths were derived, further separation of trip types is unnecessary (i.e., further identification of diverted or pass-by trips). Therefore, all trips input into CalEEMod® for the GHG emissions analysis were indicated to be primary trips, thereby effectively overriding the model's default settings to ensure that the VMT is accurately accounted for in CalEEMod®.

4.3.3.2 Mobile Source Emissions

The project VMT (without implementation of PDFs) is 184,975,838 VMT/year and was calculated to result in 54,496 MT CO_2e/year as shown in **Table 4-5c**. The Existing Condition was calculated to generate 4,520,880 VMT/year and to result in 1,946 MT CO_2e/year as shown in **Table 4-5c**.

4.3.4 Water Supply, Treatment and Distribution

Indirect GHG emissions result from the production of electricity used to convey, treat, and distribute the project's water and wastewater. The amount of electricity required to convey, treat, and distribute water depends on the volume of water as well as the sources of the water. Additionally, direct CH_4 and N_2O emissions result from the treatment of wastewater. Water demand, recycled water usage, and waste water generation values were based on model defaults.

The project's calculated water usage reflects a demand reduction for indoor potable water that is based on compliance with applicable regulatory water conservation and recycled water requirements. Specifically, the project will comply with the CalGreen standards, which require a 20 percent reduction in indoor potable water use through the use of water saving fixtures and or flow restrictors.[100] The water demand totals are shown in **Table 4-6a**. The CalGreen standards will also require the incorporation of features to reduce the project's outdoor water demand. The analysis conservatively does not reduce the project's outdoor water usage to reflect these requirements. Recycled water will be used to satisfy a portion of the outdoor, irrigation-related water demand, consistent with the State Water Resources Control Board's recycled water policy.[101]

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[100] CSBC. 2010. 2010 California Green Building Standards. 4.303.1. Available at: https://www.ladbs.org/docs/default-source/publications/misc-publications/2010-ca-green-building-standards-code.pdf?sfvrsn=11. Accessed: July 2019.

[101] The California Water Resources Control Board adopted the recycled water policy in 2009 and revised the policy in 2013. Available at: http://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2013/rs2013_0003_a.pdf. Accessed: July 2019.

For the treatment of water and wastewater, Ramboll used CalEEMod® default assumptions for average embodied energy,[102] which are based on a study commissioned by the CEC.[103]

As shown in **Table 4-6a**, the project was calculated to consume 565 and 425 million gallons (Mgal) per year of indoor and outdoor water, respectively, after applying the water demand reduction for indoor water that is attributable to the additional water conservation required by the CalGreen standards. As shown in **Table 4-6b**, the Existing Condition was calculated to consume 7 and 0.45 Mgal per year of indoor and outdoor water, respectively. After applying the water demand reduction for indoor water (**Table 4-6c**), the project water demand results in 2,772 MT CO_2e per year. The Existing Condition results in 42 MT CO_2e per year (**Table 4-6c**).

4.3.5 Solid Waste

GHG emissions from landfills are associated with the anaerobic breakdown of material. The CalEEMod® solid waste module determines the GHG emissions associated with the disposal of solid waste into landfills in quantities that are based upon land use type according to waste disposal studies conducted by CalRecycle.

Municipal solid waste (MSW) is the amount of material that is disposed of by land filling, recycling, or composting. CalEEMod® calculates the indirect GHG emissions associated with waste that is disposed of at a landfill using waste disposal rates by land use and overall composition. The model defaults for solid waste generation rates, which are based on CalRecycle data, were used in this analysis.

CalEEMod® uses the overall California Waste Stream composition to generate the necessary types of different waste disposed into landfills. The program quantifies the GHG emissions associated with the decomposition of the waste, which generates methane based on the total amount of degradable organic carbon. The program also quantifies the CO_2 emissions associated with the combustion of methane, if applicable. Default landfill gas concentrations were used as reported in Section 2.4 of the USEPA's AP-42. The IPCC has a similar method to calculate GHG emissions from MSW in its 2006 Guidelines for National Greenhouse Gas Inventories.

The analysis assumes that additional waste will be diverted from landfills by a variety of means, such as reducing the amount of waste generated, recycling, and/or composting to meet the statewide goal of 75 percent waste diversion.[104] The remainder of the waste not diverted will be disposed of at a landfill.

Various plans and regulations support achievement of the statewide diversion goal, including AB 1826, which requires applicable commercial businesses to separate food scraps and yard trimmings, and arrange for recycling services for that organic waste.

GHG emissions associated with non-landfill diverted waste streams are not considered, because it is generally assumed that these diversions do not result in any appreciable

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[102] Embodied energy refers to the amount of energy that was used in delivering water to the specific land use.

[103] CEC. 2006. Refining Estimates of Water-Related Energy Use in California. Available at: http://www.energy.ca.gov/2006publications/CEC-500-2006-118/CEC-500-2006-118.PDF. Accessed: May 2019.

[104] CalRecycle. 2013. California's 75 Percent Initiative. Available at: https://www.calrecycle.ca.gov/calendar/75percent. Accessed: July 2019.

amounts of GHG emissions when operated effectively.[105] These waste diversion alternatives may result in differences in life-cycle emissions of GHGs, but it is not appropriate to combine life-cycle emissions for only one category of emissions.[106] Biogenic CO_2 emissions were not included when CARB analyzed the GHG emissions inventory under AB 32. Therefore, they are not included in the project emissions inventory.

The proposed project was calculated to generate 4,479 tons per year of solid waste, assuming 75 percent waste diversion (**Table 4-7a**) and the Existing Condition was calculated to generate 1,167 tons per year of solid waste (**Table 4-7b**). This was calculated to result in 2,253 MT CO_2e per year for the project and 587 MT CO_2e per year for the Existing Condition (**Table 4-7c**).

4.3.6 Stationary Sources

Stationary sources, such as generators, are direct sources of GHG emissions. The stationary source GHG emissions included in this analysis result from the operation of an emergency generator for the proposed multipurpose stadium. Emissions from the generator are calculated assuming the generator is diesel powered and is operated one hour per week for maintenance and/or required emergency power.

The resulting GHG emissions from the stationary source for the Existing Condition and for the project are shown in **Table 4-8.**

4.4 Total Annual Operational Emissions

This discussion discloses the project's emissions prior to application of the PDFs discussed in **Section 5** of this report. This discussion is provided for information purposes, and serves to facilitate a subsequent illustration of the quantitative and qualitative benefits of the PDFs that are part of the project design and planning framework.

As shown in **Table 4-9**, prior to application of the PDFs, the project emits 78,378 MT CO_2e per year, for an incremental increase over the Existing Condition baseline of 74,176 MT CO_2e per year.

For additional comparison, the project's percentage contribution to the existing international, national, state, and city GHG emission inventories are 0.0001%, 0.001%, 0.02%, and 0.77% respectively, as presented in **Table 4-10**.

[105] CARB. 2010. Local Government Operations Protocol. Chapter 9.4.

[106] This inventory represents scope 1 and 2 emission categories. A life-cycle analysis of waste diversion would be a scope 3 inventory. CARB's Local Government Operations Protocol Version 1.1 (May 2010) clearly states that scope 3 emissions should not be combined with scope 1 and 2 emissions.

5. PROJECT DESIGN FEATURES

This section describes the PDFs beyond existing regulatory requirements.

5.1 Description of Project Design Features

As described in **Section 1.4** of this report, the project design includes a number of sustainability-oriented PDFs that are intended to move the project "beyond code." Many of these PDFs are consistent with the City of San Diego Climate Action Plan (CAP) and its implementing CAP Consistency Checklist, as well as the City's draft Mission Valley Community Plan (MVCP). (See **Appendix A**.)

5.1.1 Project Design Features with Quantified Reductions

A subset of the PDFs have been quantitatively accounted for in this analysis. The four PDFs that have been quantified are: solar photovoltaic panels, EV-ready and EV chargers, TDM Program, and residential hearths.

5.1.1.1 Solar Photovoltaic (PV) Panels

The project is incorporating solar PV panels on available roof space; these panels as estimated to have a total generation capacity equivalent to 10,819,478 kilowatt-hour (kWh) of electricity, or 14.9% of the project's total project electricity demand. This corresponds to a GHG reduction of 1,793 MT CO_2e (see **Table 5-1**).

5.1.1.2 EV-Ready Parking and EV Chargers

The project is equipping 3% of total residential parking spaces and 6% of total non-residential parking spaces with appropriate electric supply equipment to allow for the future installation of EV chargers (i.e., "EV ready"). Of these EV ready spaces, 50% will be equipped with EV charging stations. Based on these parameters, in total, approximately 500 parking spaces on the project site will be designated as "EV ready" and 252 of the "EV ready" spaces will be equipped with operable EV charging stations. This corresponds to a GHG reduction of 2,031 MT CO_2e (see **Table 5-2**).

5.1.1.3 TDM Program

The project's Transportation Demand Management (TDM) Program incentivizes alternative transportation besides single-occupant commuter trips. Strategies contained in the TDM Program for the campus office, residential and retail uses relate to:

- Land use diversity
- Neighborhood site enhancement
- Parking policy and pricing
- Commute trip reduction services

For more information on the specific strategies associated with the TDM Program, please see **Section 1.4** of this report, as well as Fehr & Peers' Transportation Impact Analysis (2019) for the project.

The TDM Program's strategies for non-stadium land uses are expected to reduce VMT by 14.41%, which corresponds to a GHG reduction of 5,812 MT CO_2e (see **Table 5-3**).

5.1.1.4 Residential Hearths

The proposed project is incorporating a limited number of natural gas fireplaces, and no wood-burning fireplaces, within project residences. Of all residential units in the project, up to 5% of the units may include a natural gas fireplace. The emissions associated with this hearth design feature are presented in **Table 4-3**.

5.2 Project Design Features with Unquantified Reductions but Expected Benefits

Other PDFs with GHG reduction benefits that have not been quantified in this report and only are considered qualitatively include:

- The layout of the project's development areas has been designed to maximize the unique infill opportunity presented at this Mission Valley location. This includes benefits from the existing Metropolitan Transit System's Green Line transit station that runs through the project, as well as the planned Purple Line transit station.
- The mixed-use development locates buildings in close proximity to one another, which would facilitate the use of common heating/cooling sources, where feasible, as project-level development proceeds. (The use of common heating/cooling sources will be evaluated as the building plans for individual development parcels are developed; relevant factors that will influence the use of such sources include the temporal proximity of development, type of use, and market forces.)
- Project development areas would maximize natural ventilation.
- The proposed project integrates extensive parks and landscaping, including the planting of new, on-site trees to minimize heat gain.
- The proposed project would include adaptive lighting controls, where appropriate and feasible, in order to maximize energy efficiency and minimize light pollution.
- The proposed project would achieve LEED Version 4 at a Silver or better certification level, as well as a Neighbourhood Development designation for sitewide design. LEED certification is based on standards that encourage the development of energy-efficient and sustainable buildings.
- Events at the proposed project's multipurpose stadium would benefit from implementation of TDM Program strategies specifically developed for application to stadium-related events. These strategies focus on the use of alternative modes of transportation, including transit, to reduce single-occupancy vehicle usage and parking demand on event days.

It also is noted that, in 2014, the California State University Board of Trustees adopted its Sustainability Policy.[107] To the extent applicable, project-related development will comply with the principles and goals set forth in the CSU Sustainability Policy.

5.3 Summary of Project Design Features

The PDFs that have been quantitatively considered in this analysis reduce GHG emissions by a total of 9,636 MT CO_2e (**Table 5-4**), an approximate 12 percent reduction from the project

[107] Joint Meeting Committees on Educational Policy and Campus Planning, Buildings and Groups. Available at: http://www.calstate.edu/cpdc/sustainability/policies-reports/documents/JointMeeting-CPBG-ED.pdf. Accessed: July 2019.

emissions inventory without PDFs. Other PDFs are anticipated to result in further GHG reductions but have not been quantified.

6. PROJECT INVENTORY IN CONTEXT (WITH DESIGN FEATURES)

This section assesses the significance of the project's emissions with implementation of the PDFs for purposes of CEQA.

6.1 Project Emissions Inventory (With Design Features)

As shown in **Section 5**, PDFs result in a reduction of GHGs. With these PDFs, the project emits 68,742 MT CO_2e per year (see **Table 6-1**). While the project, even with these PDFs, results in an obvious change to the existing environment by increasing existing GHG emission levels, there is no scientific or regulatory consensus regarding what particular quantity of GHG emissions is significant. Further, no agency with regulatory authority and expertise, such as the CARB or the SDAPCD, has adopted numeric GHG thresholds for land use development projects for purposes of CEQA. As such, this numeric increase – on its own – does not indicate that the project's GHG emissions would significantly impact the environment.

For additional comparison, the project's percentage contribution to the existing international, national, state, and city GHG emission inventories are 0.0001%, 0.001%, 0.02%, and 0.68% respectively, as presented in **Table 6-2**.

6.2 City of San Diego CAP

In order to evaluate the project's potential to conflict with the CAP, reference was made to the City's CAP Consistency Checklist, the purpose of which is to "provide a streamlined review process for proposed new development projects that are subject to discretionary review and trigger environmental review" under CEQA.[108] The CAP Checklist "contains measures that are required to be implemented on a project-by-project basis to ensure that the specified emissions targets identified in the CAP are achieved. … Projects that are consistent with the CAP as determined through the use of this Checklist may rely on the CAP for the cumulative impacts analysis of GHG emissions."

As shown in **Appendix A**, the project would be consistent with the CAP and, therefore, result in a less-than-significant impact as a result of its GHG emissions. More specifically, as to Step 1: Land Use Consistency, of the CAP Checklist, the project would result in increased density within a transit priority area (TPA) and implement CAP Strategy 3 actions. Additionally, as to Step 2: CAP Strategies Consistency, of the CAP Checklist, the project would implement all applicable strategies and actions of the CAP set forth in its implementing Checklist. Adherence to the CAP Checklist is required by SDMC Section 22.0908, which conditions the sale and development of the project site upon compliance with the City's GHG emission reduction goals.

6.3 Mission Valley Community Plan

In order to evaluate the project's potential to conflict with the draft Mission Valley Community Plan (MVCP), reference was made to the final draft of the MVCP, including its Design Guidelines and Policies for Development. One objective of the final draft of the MVCP is to "help implement" the City's CAP, and the City has determined that the "land use policies

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[108] City of San Diego. Climate Action Plan Consistency Checklist. Available at: https://www.sandiego.gov/sites/default/files/city_of_san_diego_cap_checklist.pdf. Accessed: July 2019.

in this plan are consistent with the policy goals identified in the CAP. … Through the policies in this plan, the future Mission Valley will be more sustainable, produce less per capita greenhouse gas emissions, and be a vibrant and thriving community that many will have the privilege to call home."[109]

The final program EIR (SCH #2017071066) prepared for the MVCP concludes that, while implementation of the MVCP would increase GHG emissions as a result of its proposed increase in density and intensity in the Mission Valley planning area, such increase would be a direct result of implementation of the CAP's strategies and the General Plan's City of Villages Strategy. (The City of Villages Strategy is designed to focus redevelopment, infill and new growth into pedestrian-friendly, mixed-use activity centers linked to the regional transit system.) Further, increasing residential density and non-residential intensity along the transit corridors within the Mission Valley area, and the co-located transit priority areas (TPAs), would support the City in achieving its GHG emissions reduction targets under the CAP. As explained in the City's final program EIR, "[c]oncentrating new growth in an area can result in greater GHG emissions than allowing the less intensive land uses to remain since growth is being directed toward areas that would produce less GHG emissions per capita citywide. Thus, consistency with the City of Villages Strategy can result in one Community Plan area having an increase in GHG emissions, with the result still being an overall decrease in citywide GHG emissions."[110]

As shown in **Appendix A**, the project would be consistent with applicable strategies for the reduction of GHG emissions in the final draft of the MVCP.

It also is noted that the final draft of the MVCP contemplates the project site being subject to future redevelopment under a Specific Plan or Campus Master Plan, as proposed by the project. More specifically, the environmental analysis for the final draft of the MVCP anticipates the following uses on the project site: 4,800 residential units; 2 million square feet of office space; 300,000 square feet of retail space; and, active park and open space acreage. The project's proposed land uses fall within this envelope of development parameters. As such, the proposed project would be consistent with the final draft of the MVCP.

6.4 San Diego Association of Governments

SANDAG's San Diego Forward plan (the current RTP/SCS for the region) contains five basic strategies:

1. Focus housing and job growth in urbanized areas where there is existing and planned transportation infrastructure, including transit.

The project is consistent with Strategy 1 because it co-locates housing and employment on an infill site in an urbanized area that is served by transit. By way of background, the project site is identified as a potential "Town Center" (specifically, "SD MV-5") on SANDAG's Smart

[109] City of San Diego. Final Draft of the Mission Valley Community Plan – June 2019. https://www.sandiego.gov/sites/default/files/missionvalley_cpu_draft_053119_1.pdf. Accessed: July 2019.

[110] City of San Diego. Mission Valley Community Plan Update Final Program Environmental Impact Report (PEIR). Available at: https://www.sandiego.gov/sites/default/files/mvcpu_feir_compiled_compressed.pdf. Accessed: July 2019.

Growth Concept Map for the Mid-City and East County Subregion.[111] As described by SANDAG, "Existing/Planned smart growth areas are locations that either contain existing smart growth development or allow planned smart growth in accordance with the identified land use targets, and are accompanied by existing or planned transit services included in San Diego Forward: The Regional Plan."[112]

Here, the Metropolitan Transit System's (MTS) existing San Diego Trolley "Green Line" runs through the project site; the Stadium Station also is located onsite and presently is frequented by the traveling public during stadium events. The Green Line provides daily service along a 23.6-mile route, with 27 stations, and operates from the Santee Transit Center through Mission Valley to the 12th & Imperial Transit Center in downtown San Diego. In addition to the Green Line, MTS Bus Route 14 also is in the vicinity of the project site; the closest bus stop is located at Rancho Mission Road/San Diego Mission Road, which is an approximately 0.5-mile walk from the existing stadium's main gate. MTS Bus Route 14 connects to other bus routes and several trolley stations.

SANDAG also is studying the feasibility of the San Diego Trolley "Purple Line." Potential alignments for this future trolley line would enter the project site from the southeast, heading in a west-northwesterly direction, and would include the siting of another trolley station on the project site.

For additional information and figures regarding the existing and potential future transit opportunities on the project site and in the project vicinity, please see Section 2.0, Project Description, of the project's EIR, as well as Fehr & Peers' TIA.

2. Protect the environment and help ensure the success of smart growth land use policies by preserving sensitive habitat, open space, cultural resources, and farmland.

The project is consistent with Strategy 2 because it would provide approximately 84 acres of parks, recreation and open space, including a 34-acre River Park. For additional information regarding the project's parks, recreational and open space amenities, please see Section 2.0, Project Description, of the project's EIR.

3. Invest in a transportation network that gives people transportation choices and reduces GHG emissions.

The project is consistent with Strategy 3 because it would provide further enhancements to the existing transportation options located on the project site (see trolley and bus options discussed above) through implementation of the multi-faceted TDM Program that would serve to reduce VMT by approximately 14 percent. These options result in a GHG reduction, as described in **Section 5**.

4. Address the housing needs of all economic segments of the population.

The project is consistent with Strategy 4 because it would provide a range of housing for faculty, staff and students, as well as residential market-rate and affordable housing. As to the latter type of housing, up to approximately 10 percent of the residential units would be

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111 SANDAG. Mid-City and East County Subregional Map. Available at: https://www.sandag.org/uploads/projectid/projectid_296_13997.pdf. Accessed: July 2019.

112 SANDAG. Smart Growth Concept Map Site Descriptions. Available at: https://www.sandag.org/uploads/projectid/projectid_296_14002.pdf. Accessed: July 2019.

affordable in conformance with the City of San Diego's current Inclusionary Housing Ordinance. Provision of affordable housing accords to the requirements of SDMC Section 22.0908, which conditions the sale and development of the project site upon compliance with the City's housing impact fees/affordable housing requirements.

5. Implement the Regional Plan through incentives and collaboration.

The project is consistent with Strategy 5 because it includes a TDM Program that incorporates innovative pricing policies discussed in San Diego Forward, such as unbundling parking, and alternative transportation (e.g., bicycle share). These measures help further the implementation of the RTP/SCS.

Based on the consistency with all five basic strategies of the Regional Plan, and SANDAG's identification of the project site as a potential "Town Center" on its Smart Growth Concept Map, the project would not conflict with SANDAG's San Diego Forward plan.

6.5 Statewide Emissions Reduction Targets

Studies[113] have shown that, in order to meet the statewide 2050 reduction target, aggressive and economy-wide technological changes in the transportation and energy sectors, including electrification of the vehicle fleet and decarbonisation of electricity and fuel sources, will be required among many other possible measures. One study[114] indicated that, even with these emerging technologies, the 2050 goal will not be met, due to the population growth to 55 million by 2050. A more recent study,[115] however, shows that the existing and proposed regulatory framework will allow the State to reduce GHG emissions to 40 percent below 1990 levels by 2030, and to 60 percent below 1990 by 2050. Even though this study did not provide a regulatory and technology roadmap to achieve the 2050 target, it demonstrated that various combinations of policies could allow statewide emissions to remain very low through 2050, suggesting that the combination of new technologies and other regulations not analyzed in the study could allow the State to meet the 2050 target. The 2017 Scoping Plan describes two paths to achieving the 2050 target. The first path would be one in which consistent progress is made between 2020 and 2050, the 2030 target is achieved, and progress leads to achievement of the 2050 target earlier. The other path is one that begins with the 2030 target and then progresses towards the 2050 target of 80% below 1990 levels.[116]

Statewide efforts are underway to facilitate the State's achievement of its 2050 target and it is reasonable to expect the project's emissions to decline as the regulatory initiatives identified by CARB in its Scoping Plan are implemented, new regulatory programs or incentives are implemented to reduce GHG emissions, and other technological innovations occur. Many of these initiatives include reducing the carbon content of motor fuels and fuels

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[113] Lawrence Berkeley National Laboratory (LBL). 2011. California's Energy Future – The View to 2050. May. Available at: http://ccst.us/publications/2011/2011energy.php. Accessed: March 2019.

[114] LBL. 2013. Estimating Policy-Driven Greenhouse Gas Emissions Trajectories in California: The California Greenhouse Gas Inventory Spreadsheet (GHGIS) Model. Available at: http://eetd.lbl.gov/publications/estimating-policy-driven-greenhouse-g. Accessed: November 2017.

[115] Jeffery Greenblatt. 2015. Modeling California Impacts on Greenhouse Gas Emissions. Energy Policy. Volume 78, May 2015, pages 158-172. Abstract available at: http://www.sciencedirect.com/science/article/pii/S0301421514006892. Accessed: July 2019.

[116] CARB. 2017. California's 2017 Climate Change Scoping Plan. November. Available at: https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed: July 2019.

for electricity generation.[117] Reducing the carbon content of motor fuels and fuels for electricity generation will reduce CO_2e emissions from this project over time.

For example, CARB's 2014 First Update "lays the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050." And, many of the emission reduction strategies recommended by CARB would serve to reduce the project's post-build out (2037) emissions level to the extent applicable by law:

- Energy Sector: Continued improvements in California's appliance and building energy efficiency programs and initiatives would serve to reduce the project's emissions level. Additionally, further additions to California's renewable resource portfolio would favorably influence the project's emissions level.
- Transportation Sector: Anticipated deployment of improved vehicle efficiency, zero emission technologies, lower carbon fuels, and improvement of existing transportation systems all will serve to reduce the project's emissions level.
- Water Sector: The project's emissions level will be reduced as a result of further desired enhancements to water conservation technologies.
- Waste Management Sector: Plans to further improve recycling, reuse and reduction of solid waste will beneficially reduce the project's emissions level.

In addition, it is important to note that the majority of the project's GHG emissions are related to sectors that are covered by the California Cap-and-Trade program. Emissions from major GHG-emitting sources, such as electricity generation, fuel distributors (e.g., natural gas and propane fuel providers and transportation fuel providers), and large stationary sources are capped under the rules of the Cap-and-Trade program, and the majority of policy proposals developed by CARB and other State agencies pursuing GHG emissions-reducing strategies are designed to secure reductions from these sectors well into the future. If the project emissions associated with these sectors are excluded, the only category that remains is related to vegetation change (**Table 2-1**).

The project's emissions total at build-out (2037) represents the maximum emissions inventory for the project as California's emissions sources are being regulated (and are foreseeably expected to continue to be regulated in the future) in furtherance of the State's environmental policy objectives. Indeed, in light of the above, the project's emissions at project buildout (2037) are reasonably anticipated to decline due to continued regulatory and technological advancements.

Further, the project design itself advances many of the State's primary policies directed towards the reduction of GHG emissions. For example, approximately 68 percent of the project's emissions profile is attributable to transportation-related emissions. The project addresses that emissions source in two complementary ways: First, the project would

[117] The extent to which GHG emissions from traffic at the project will change in the future depends on the quantity (e.g., number of vehicles, average daily mileage) and quality (i.e., carbon content) of fuel that will be available and required to meet both regulatory standards and residents' needs. In addition, renewable power requirements, low carbon fuel standards, and vehicle emissions standards discussed above will all decrease GHG emissions per unit of energy delivered or per vehicle mile travelled.

California Energy Commission. 2007. State Alternative Fuels Plan. December. CEC-600-2007-011-CMF. Available at: http://www.energy.ca.gov/2007publications/CEC-600-2007-011/CEC-600-2007-011-CMF.PDF. Accessed: July 2019.

facilitate the use of ZEVs through the provision of on-site charging infrastructure. The extension of ZEV infrastructure is critical to the transition of the vehicle fleet from internal combustion engines to zero emission engines. Second, the SB 743 analysis prepared for the project (see Fehr & Peers' TIA (2019)) confirms that – with implementation of the TDM Program – the project-generated VMT per service population would represent an approximately 25 percent reduction from the regional baseline VMT per service population level and an approximately 21 percent reduction from the citywide baseline VMT per service population level. Further, when viewed in the cumulative setting, the project would reduce regional VMT as compared to regional VMT without the project, illustrating the benefits of the locational attributes of developing residential and non-residential uses on the project site. The project's reduction from baseline VMT per service population levels is consistent with the focus of CARB, in its 2017 Scoping Plan, on reducing statewide VMT through a suite of strategies. The project also would provide on-site renewable energy (through the installation of solar PV panels), and be designed to achieve LEED Version 4 at a Silver or better certification level (this design feature extends to individual buildings, including the stadium, on the project site, and also includes a Neighborhood Development designation for sitewide design). These design features illustrate that the built environment will go beyond the bounds of existing regulatory compliance in pursuit of sustainability.

Finally, the location of the project site is compatible with and complementary of the State's GHG reduction goals. More specifically, the project would develop residential and non-residential land uses in an infill setting that is served by multi-modal transportation options (trolley and bus), and would further enhance other multi-modal options by designing the site to encourage pedestrian- and bicycle-oriented connectivity. The infill location allows the City of San Diego specifically, and the San Diego region generally, to accommodate existing and projected population and employment growth within a developed, urbanized area (i.e., Mission Valley), thereby avoiding the conversion of undeveloped land to developed uses, which also is consistent with CARB's objectives in the 2017 Scoping Plan.

In summary, the project would not conflict with the statewide emissions reduction targets for 2020, 2030 and 2050.

6.6 Impact Determination

While the project would represent an increase in GHG emissions when compared to the existing conditions on the site, accommodating California's growing population base at this location and with the project's proposed design attributes is more efficient than other alternatives, such as development in a non-urbanized area without transit. As explained in the City's General Plan,

> "The City of Villages strategy to direct compact growth in limited areas that are served by transit is, in itself, a conservation strategy. Compact, transit-served growth is an efficient use of urban land that reduces the need to develop outlying areas and creates an urban form where walking, bicycling, and transit are more attractive alternatives to automobile travel. Reducing dependence on automobiles reduces vehicle miles traveled which, in turn, lowers greenhouse gas emissions."[118]

[118] City of San Diego. General Plan - Strategic Framework. Available at: https://www.sandiego.gov/sites/default/files/legacy//planning/genplan/pdf/generalplan/adoptedsfelem.pdf. Accessed: July 2019.

Further, as discussed above, the proposed project would not conflict with the City's CAP, the City's draft MVCP, SANDAG's RTP/SCS, or statewide emission reduction targets. Various factors support these determinations, such as the project's location on an infill site in Mission Valley that is served by transit; the project's implementation of a TDM Program that reduces VMT at a level that is consistent with the objectives of SB 743; and, the project's exceedance of existing regulatory compliance standards for the built environment.

Therefore, the project's GHG emissions will be less than significant in the context of Threshold 1 and Threshold 2, as discussed in **Section 3.3**.

TABLES

Table 1-1. Land Uses and Square Footages
SDSU Mission Valley Campus Master Plan Project
San Diego, California

Project Land Use	CalEEMod® Land Use Type	CalEEMod® Land Use Subtype[1]	Land Use Unit Amount	Size Metric
Market-based Housing	Residential	Condo/Townhouse High Rise	70	DU
	Residential	Mid-Rise Apartments	2,010	DU
	Residential	High-Rise Apartments	2,220	DU
Student-focused Housing	Residential	Mid-Rise Apartments	300	DU
Campus/Tech Office Space	Commercial	General Office Building	1,165	TSF
Medical Office Space	Commercial	Medical Office Building	100	TSF
Scientific Research	Commercial	Research & Development	301	TSF
Sports Stadium	Recreational	User Defined Recreational	14.82	acre
Hotel	Recreational	Hotel	400	rooms
Retail	Retail	Regional Shopping Center	83	TSF
	Retail	Supermarket	12	TSF
Recreational Center	Recreational	Health Club	25	TSF
Structured Parking	Parking	Enclosed Parking Structure with Elevator	11,270	spaces
Community Park/River Park	Recreational	City Park	6	acre
Active Parks	Recreational	City Park	50	acre
Additional[2]	Recreational	City Park	27.6	acre

Notes:
[1] Land uses as defined in CalEEMod®.
[2] Additional recreational area includes landscaped areas, paseos, and trails.

Abbreviations:
CalEEMod® - California Emissions Estimator Model
DU - dwelling unit
SDSU - San Diego State University
sqft - square feet
TSF - thousand square feet

Table 2-1. GHG Emissions Sources Covered by Cap-and-Trade Program
SDSU Mission Valley Campus Master Plan Project
San Diego, California

Land Use Emissions Sources	GHG Emissions Source Examples	Covered by Cap-and-Trade?
Area Sources	Fuel combustion by landscaping equipment	Yes (gasoline and diesel fuel suppliers)
Energy Use	Natural gas combustion (e.g., stoves and water heaters)	Yes (natural gas suppliers)
	Fuel combustion at utilities for electricity production used in building energy use	Yes (electrical generators)
Water use	Production of electricity to supply and treat water	Yes (electrical generators)
	Methane generated by wastewater treatment	Yes (wastewater treatment facilities)
Waste Disposal	Landfill gas combustion non-biogenic GHG emissions	Yes (landfills)
Traffic	Fuel combustion in car and trucks	Yes (gasoline and diesel fuel suppliers)
Construction	Fuel combustion in construction equipment	Yes (gasoline and diesel fuel suppliers)
Vegetation	Carbon sequestration lost due to vegetation loss	No

Abbreviations:
GHG - greenhouse gases
SDSU - San Diego State University

Table 4-1a. Construction Schedule Assumptions
SDSU Mission Valley Campus Master Plan Project
San Diego, California

Construction Phase Name[1]	CalEEMod® Phase Type[1]	Start Date[1]	End Date[1]	Phase Duration[2] (days)
Grading Phase A	Grading	2/1/2020	7/31/2020	130
Site Preparation Phase A	Site Preparation	8/1/2020	12/31/2021	370
Building Construction Stadium (Phase A)	Building Construction	8/1/2020	3/1/2022	412
Grading Phase A (cont'd)	Grading	12/1/2021	4/15/2022	98
Grading Phase B (Rough Residential Pad & Initial River Park)	Grading	4/16/2022	7/31/2022	75
Site Preparation Phase B (utilities)	Site Preparation	1/1/2022	6/14/2022	117
Paving Stadium (Phase A)	Paving	12/1/2021	7/31/2022	173
Demolition of SDCCU (Phase A)	Demolition	1/1/2022	4/15/2022	75
Architectural Coating Stadium (Phase A)	Architectural Coating	3/1/2022	7/31/2022	109
Demolition of SDCCU (Phase B)	Demolition	4/16/2022	6/30/2022	54
Finish Phase B (Finish Residential Pad and River Park)	Site Preparation	6/15/2022	6/30/2024	533
Grading Phase C	Grading	8/1/2022	12/31/2022	110
Building Construction Phase C1	Building Construction	7/1/2024	9/30/2027	849
Site Preparation - Off-Site Improvements	Site Preparation	7/1/2025	1/7/2026	137
Paving Phase C1	Paving	10/1/2027	8/14/2028	227
Architectural Coating Phase C1	Architectural Coating	8/17/2028	6/30/2029	227
Building Construction Phase C2	Building Construction	7/1/2028	10/1/2031	848
Paving Phase C2	Paving	10/2/2031	8/15/2032	227
Architectural Coating Phase C2	Architectural Coating	8/18/2032	6/30/2033	227
Building Construction Phase C3	Building Construction	7/1/2032	10/1/2035	848
Paving Phase C3	Paving	10/2/2035	8/14/2036	228
Architectural Coating Phase C3	Architectural Coating	8/15/2036	6/30/2037	228

Notes:

[1] Construction phases and duration are based on Project-specific estimates.

[2] The construction work week was assumed to be 5 days per week.

Abbreviations:

CalEEMod® - California Emissions Estimator Model

SDCCU - San Diego County Credit Union

SDSU - San Diego State University

Table 4-1b. Construction Equipment Mix Assumptions
SDSU Mission Valley Campus Master Plan Project
San Diego, California

Construction Phase Name	CalEEMod® Phase Type	Equipment Type	Number of Equipment[1,2]	Hours per day[1,2]	Horsepower (hp)[1]	Load Factor[1]
Grading Phase A	Grading	Excavators	4	8	158	0.38
		Graders	3	8	187	0.41
		Rubber Tired Dozers	2	8	247	0.4
		Scrapers	6	8	367	0.48
		Tractors/Loaders/Backhoes	6	8	97	0.37
Site Preparation Phase A	Site Preparation	Rubber Tired Dozers	6	8	247	0.4
		Tractors/Loaders/Backhoes	6	8	97	0.37
Building Construction Stadium (Phase A)	Building Construction	Cranes	3	16	231	0.29
		Forklifts	6	16	89	0.2
		Generator Sets	3	16	84	0.74
		Tractors/Loaders/Backhoes	5	16	97	0.37
		Welders	8	16	46	0.45
Grading Phase A (cont'd)	Grading	Excavators	4	8	158	0.38
		Graders	3	8	187	0.41
		Rubber Tired Dozers	3	8	247	0.4
		Scrapers	4	8	367	0.48
		Tractors/Loaders/Backhoes	5	8	97	0.37
Paving Stadium (Phase A)	Paving	Pavers	3	8	130	0.42
		Paving Equipment	2	8	132	0.36
		Rollers	4	8	80	0.38
Site Preparation Phase B (utilities)	Site Preparation	Rubber Tired Dozers	3	8	247	0.4
		Tractors/Loaders/Backhoes	8	8	97	0.37
Demolition of SDCCU (Phase A)	Demolition	Concrete/Industrial Saws	5	16	81	0.73
		Excavators	5	16	158	0.38
		Rubber Tired Dozers	8	16	247	0.4
		Crushing/Proc. Equipment	3	16	1001	0.74
Architectural Coating Stadium (Phase A)	Architectural Coating	Air Compressors	8	6	78	0.48
Demolition of SDCCU (Phase B)	Demolition	Concrete/Industrial Saws	5	16	81	0.73
		Excavators	5	16	158	0.38
		Rubber Tired Dozers	3	16	247	0.4
		Crushing/Proc. Equipment	3	16	1001	0.74
Grading Phase B (Rough Residential Pad & Initial River Parks)	Grading	Excavators	6	8	158	0.38
		Graders	4	8	187	0.41
		Rubber Tired Dozers	3	8	247	0.4
		Scrapers	6	8	367	0.48
		Tractors/Loaders/Backhoes	6	8	97	0.37
Finish Phase B (Finish Residential Pad and River Park)	Site Preparation	Rubber Tired Dozers	6	8	247	0.4
		Tractors/Loaders/Backhoes	8	8	97	0.37
Grading Phase C	Grading	Excavators	4	8	158	0.38
		Graders	6	8	187	0.41
		Rubber Tired Dozers	3	8	247	0.4
		Scrapers	4	8	367	0.48
		Tractors/Loaders/Backhoes	6	8	97	0.37
Finish Phase B (Finish Residential Pad and River Park)	Site Preparation	Rubber Tired Dozers	6	8	247	0.4
		Tractors/Loaders/Backhoes	8	8	97	0.37
Building Construction Phase C1	Building Construction	Cranes	4	7	231	0.29
		Forklifts	8	8	89	0.2
		Generator Sets	3	8	84	0.74
		Tractors/Loaders/Backhoes	6	7	97	0.37
		Welders	6	8	46	0.45
Site Preparation - Off-Site Improvements	Site Preparation	Rubber Tired Dozers	3	8	247	0.4
		Tractors/Loaders/Backhoes	4	8	97	0.37
Paving Phase C1	Paving	Pavers	2	8	130	0.42
		Paving Equipment	2	8	132	0.36
		Rollers	2	8	80	0.38
Building Construction Phase C2	Building Construction	Cranes	6	7	231	0.29
		Forklifts	8	8	89	0.2
		Generator Sets	6	8	84	0.74
		Tractors/Loaders/Backhoes	6	7	97	0.37
		Welders	6	8	46	0.45
Architectural Coating Phase C1	Architectural Coating	Air Compressors	4	6	78	0.48

Table 4-1b. Construction Equipment Mix Assumptions
SDSU Mission Valley Campus Master Plan Project
San Diego, California

Construction Phase Name	CalEEMod® Phase Type	Equipment Type	Number of Equipment[1,2]	Hours per day[1,2]	Horsepower (hp)[1]	Load Factor[1]
Paving Phase C2	Paving	Pavers	4	8	130	0.42
		Paving Equipment	2	8	132	0.36
		Rollers	4	8	80	0.38
Building Construction Phase C3	Building Construction	Cranes	4	7	231	0.29
		Forklifts	3	8	89	0.2
		Generator Sets	1	8	84	0.74
		Tractors/Loaders/Backhoes	3	7	97	0.37
		Welders	1	8	46	0.45
Architectural Coating Phase C2	Architectural Coating	Air Compressors	4	6	78	0.48
Paving Phase C3	Paving	Pavers	2	8	130	0.42
		Paving Equipment	2	8	132	0.36
		Rollers	2	8	80	0.38
Architectural Coating Phase C3	Architectural Coating	Air Compressors	4	6	78	0.48

Notes:
[1] Operation hours, horsepower, and load factor based on CalEEMod® defaults. Available at: www.caleemod.com. Accessed: September 2018.
[2] Additional updates were made to equipment mix and operational hours to reflect project-specific information.

Abbreviations:
CalEEMod® - California Emissions Estimator Model
hp - horsepower
SDCCU - San Diego County Credit Union
SDSU - San Diego State University

Table 4-1c. Construction Vehicle Trips Summary (2020-2023)
SDSU Mission Valley Campus Master Plan Project
San Diego, California

Vehicle Trip Type	Vehicle Trips per Working Day[1]									
	Feb-2020	Mar-2020	Apr-2020	May-2020	Jun-2020	Jul-2020	Aug-2020	Sep-2020	Oct-2020	Nov-2020
Worker	97	103	164	187	187	246	265	295	228	228
Vendor	24	24	84	84	120	128	128	128	68	68
Hauling	420	420	420	0	20	160	160	160	160	160

Vehicle Trip Type	Vehicle Trips per Working Day[1]									
	Dec-2020	Jan-2021	Feb-2021	Mar-2021	Apr-2021	May-2021	Jun-2021	Jul-2021	Aug-2021	Sep-2021
Worker	304	392	411	449	468	335	335	316	289	289
Vendor	108	156	156	156	96	96	96	96	96	96
Hauling	160	160	160	160	160	160	160	160	160	160

Vehicle Trip Type	Vehicle Trips per Working Day[1]									
	Oct-2021	Nov-2021	Dec-2021	Jan-2022	Feb-2022	Mar-2022	Apr-2022	May-2022	Jun-2022	Jul-2022
Worker	213	213	194	270	232	270	270	270	251	126
Vendor	76	76	76	76	36	56	36	36	36	16
Hauling	160	160	160	0	0	0	0	160	160	160

Vehicle Trip Type	Vehicle Trips per Working Day[1]									
	Aug-2022	Sep-2022	Oct-2022	Nov-2022	Dec-2022	Jan-2023	Feb-2023	Mar-2023	Apr-2023	May-2023
Worker	126	126	126	126	126	126	126	122	122	122
Vendor	16	16	16	16	16	16	16	16	16	16
Hauling	160	160	160	160	0	0	0	0	0	0

Vehicle Trip Type	Vehicle Trips per Working Day[1]						
	Jun-2023	Jul-2023	Aug-2023	Sep-2023	Oct-2023	Nov-2023	Dec-2023
Worker	111	92	92	92	92	92	92
Vendor	8	8	8	8	8	8	8
Hauling	0	0	0	0	0	0	0

Notes:
[1] Worker, Vendor, and Hauling trips for 2020-2023 are project-specific values. Construction is expected to occur 5 days per week.

Table 4-1d. Construction Vehicle Trips Summary (2024-2037)
SDSU Mission Valley Campus Master Plan Project
San Diego, California

Construction Phase Name	Start Date	End Date	Worker Trips per Day[1]	Vendor Trips per Day[1]
Finish Phase B (Finish Residential Pad and River Park)	6/15/2022	6/30/2024	92	8
Building Construction Phase C1	7/1/2024	9/30/2027	189	58
Site Preparation - Off-Site Improvements	7/1/2025	1/7/2026	18	0
Paving Phase C1	10/1/2027	8/14/2028	15	0
Architectural Coating Phase C1	7/1/2028	10/1/2031	38	0
Building Construction Phase C2	8/17/2028	6/30/2029	122	32
Paving Phase C2	10/2/2031	8/15/2032	25	0
Architectural Coating Phase C2	7/1/2032	10/1/2035	24	0
Building Construction Phase C3	8/18/2032	6/30/2033	122	32
Paving Phase C3	10/2/2035	8/14/2036	15	0
Architectural Coating Phase C3	8/15/2036	6/30/2037	24	0

Notes:

[1] Trips are presented as one-way trips and are based on CalEEMod® defaults with the exception of Finish Phase B (Finish Residential Pad and River Park). Finish Phase B (Finish Residential Pad and River Park) trips are based on project-specific data. The one-way trip lengths for worker and vendor trips are also based on CalEEMod® defaults and are 10.8 and 7.3 miles, respectively. There are no hauling trips associated with these construction phases.

Abbreviations:

CalEEMod® - California Emissions Estimator Model
SDCCU - San Diego County Credit Union
SDSU - San Diego State University

Table 4-1e. Demolition Waste Volumes
SDSU Mission Valley Campus Master Plan Project
San Diego, California

Phase Name	Size Metric	Unit Amount[1]
Demolition of SDCCU (Phase A)	Tons of Debris	215,000
Demolition of SDCCU (Phase B)	Tons of Debris	215,000

Notes:
[1] Debris quantity based on project-specific data.

Abbreviations:
SDCCU - San Diego County Credit Union
SDSU - San Diego State University

Table 4-2a. Annual GHG Construction Emissions from Off-Road Equipment
SDSU Mission Valley Campus Master Plan Project
San Diego, California

Year	CO_2e Emissions[1,2] (MT)
2020	2,055
2021	2,795
2022	7,111
2023	877
2024	910
2025	1,156
2026	942
2027	764
2028	845
2029	1,338
2030	1,401
2031	1,181
2032	650
2033	616
2034	550
2035	493
2036	247
2037	66
Total	**23,997**

Notes:

[1] Annual off-road emissions were obtained from the CalEEMod® output files in Appendix B-1 and Appendix B-2.

[2] CO_2e includes CO_2, CH_4, and N_2O emissions, weighted by their respective global warming potentials.

Abbreviations:

CalEEMod® - CALifornia Emissions Estimator MODel
CH_4 - methane
CO_2e - carbon dioxide equivalents
CO_2 - carbon dioxide
GHG - greenhouse gas
MT - metric tons
N_2O - nitrous oxide
SDSU - San Diego State University

Table 4-2b. Annual GHG Construction Emissions from On-Road Vehicles
SDSU Mission Valley Campus Master Plan Project
San Diego, California

Construction Phase	Year	CO_2e Emissions[1,2]			
		Hauling	Vendor	Worker	Total
		(MT)			
Project Site	2020	1,872	279	183	2,334
	2021	1,594	361	297	2,252
	2022	922	104	169	1,196
	2023	0	37	90	127
	2024	0	109	115	224
	2025	0	189	155	344
	2026	0	188	143	330
	2027	0	140	105	245
	2028	0	51	59	110
	2029	0	102	97	199
	2030	0	102	82	183
	2031	0	76	64	140
	2032	0	51	55	107
	2033	0	101	84	185
	2034	0	101	75	176
	2035	0	76	58	134
	2036	0	0	11	11
	2037	0	0	7	7
	Total	**4,388**	**2,068**	**1,850**	**8,306**

Notes:

[1] Yearly CO_2e emission estimates for calendar years 2020 to 2023 were obtained from Table C-5a in Appendix C. Yearly CO_2e emissions for other calendar years (2024 and beyond) were obtained from the CalEEMod output in Appendix B-2.

[2] CO_2e includes CO_2, CH_4, and N_2O emissions, weighted by their respective global warming potentials.

Abbreviations:

CalEEMod® - CALifornia Emissions Estimator MODel
CH_4 - methane
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalents
MT - metric tons
N_2O - nitrous oxide
SDSU - San Diego State University

Table 4-2c. Summary of Construction GHG Emissions
SDSU Mission Valley Campus Master Plan Project
San Diego County, California

Construction Source	CO_2e Emissions[1] (MT)
Off-Road Equipment	23,997
On-Road Vehicles	8,306
Total	**32,303**
30-yr amortized[2]	**1,077**

Notes:

[1] Emissions calculated using CalEEMod®. See Tables 4-2a and 4-2b for detailed emissions inventories.

[2] One-time emissions from construction were amortized over a 30-year period.

Abbreviations:
CalEEMod® - CALifornia Emissions Estimator MODel
CO_2e - carbon dioxide equivalents
GHG - greenhouse gas
MT - metric tons
SDSU - San Diego State University

Table 4-2d. Project Vegetation Change and Net New Trees
SDSU Mission Valley Campus Master Plan Project
San Diego County, California

Land Use Change[1]				
Land Designation	CalEEMod® Vegetation Type	CalEEMod® Vegetation Subtype	Initial Acreage	Final Acreage
Shrub/tree planters	Forest Land	Scrub	0.39	0
Open Public Space	Grassland	Grassland	0.0	83.60
Sequestration[2]				
Total net trees (Miscellaneous)	616			

Notes:
[1] Land use change was based on Project-specific data.
[2] The Project will plant a net of 616 new trees.

Abbreviations:
CalEEMod® - California Emissions Estimator Model
SDSU - San Diego State University

Table 4-2e. Vegetation Change Evaluation (Without **Design Features**)
SDSU Mission Valley Campus Master Plan Project
San Diego, California

Type of Vegetation Change	Initial Vegetation (acres)	Final Vegetation (acres)	CO_2e Emissions (MT/yr)
Grassland	0	83.6	-360
Scrub	0.39	0	6
Total Vegetation Change	0.39	83.6	-355
CO_2e sequestered from Net New Trees[1]			-436
CO_2e emissions from Vegetation Change and Net New Trees			-791
30-year amortized CO_2e emissions from Vegetation Change and Net New Trees			-26

Notes:
[1] See Table 4-2d for details on net new trees. A negative number indicates an increase in carbon sequestration.

Abbreviations:
CO_2e - carbon dioxide equivalents
MT - metric tons
SDSU - San Diego State University
yr - year

Table 4-3. Project GHG Emissions from Area Sources
SDSU Mission Valley Campus Master Plan Project
San Diego, California

Category[1]	CO_2e Emissions[2] (MT/yr)
Existing	
Hearth	0
Landscaping	0.003
Total	**0**
Project	
Hearth[3]	182
Landscaping	57
Total	**240**

Notes:

[1] Categories that CalEEMod® classifies as "Area Sources." CalEEMod® does not associate any CO_2e emissions with Architectural Coating and Consumer Products.

[2] Emissions were calculated using CalEEMod®.

[3] These emissions include the project's design feature that limits the number of natural gas hearths to 5% of the dwelling units.

Abbreviations:

CalEEMod® - CALifornia Emissions Estimator MODel
CO_2e - carbon dioxide equivalents
GHG - greenhouse gases
MT - metric tons
SDSU - San Diego State University
yr - year

Table 4-4a. Project Stadium Electricity and Natural Gas Usage Rates
SDSU Mission Valley Campus Master Plan Project
San Diego, California

Project Entitlement	Land Use Amount		Title 24 Electricity[1]	Non-Title 24 Electricity[1]	Lighting Electricity[1]	Title 24 Natural Gas[1]	Non-Title 24 Natural Gas[1]
			kWh/SF	kWh/SF	kWh/SF	kBTU/SF	kBTU/SF
Sports Stadium	14.82	acre	1.20	4.25	2.82	2.39	4.03

Notes:

[1] Energy usage is based on energy usage reported in the Qualcomm Stadium Reconstruction Project EIR (SCH No. 2015061061). Available at: https://www.sandiego.gov/sites/default/files/legacy/cip/pdf/stadiumeir/draftstadiumeir.pdf. Accessed: May 2019. Energy demand data from Qualcomm Stadium was obtained and normalized by attendance for the stadiums. The data were then converted to a kWh/SF or kBTU/SF value and applied to the Project stadium.

Abbreviations:

EIR - Environmental Impact Report
kBTU - 1000 British thermal unit
kWh - kilowatt-hour
SCH - State Clearinghouse
SDSU - San Diego State University
SF - square foot

Table 4-4b. Existing Stadium Electricity and Natural Gas Usage Rates
SDSU Mission Valley Campus Master Plan Project
San Diego, California

Project Entitlement	Land Use Amount		Title 24 Electricity[1]	Non-Title 24 Electricity[1]	Lighting Electricity[1]	Title 24 Natural Gas[1]	Non-Title 24 Natural Gas[1]
			kWh/SF	kWh/SF	kWh/SF	kBTU/SF	kBTU/SF
Sports Stadium	15	acre	0.53	1.85	1.23	1.04	1.75

Notes:

[1] Energy usage is based on energy usage reported in the Qualcomm Stadium Reconstruction Project EIR (SCH No. 2015061061). Available at: https://www.sandiego.gov/sites/default/files/legacy/cip/pdf/stadiumeir/draftstadiumeir.pdf. Accessed: May 2019. Energy demand data from Qualcomm Stadium was obtained and normalized by attendance for the stadiums. The data were then converted to a kWh/SF or kBTU/SF value and applied to the existing (2018) stadium.

Abbreviations:

EIR - Environmental Impact Report
kBTU - 1000 british thermal unit
kWh - kilowatt-hour
SCH - State Clearinghouse
SDSU - San Diego State University
SF - square foot

Table 4-4c. Utility GHG Emission Factor Associated with Renewable Portfolio Standard
SDSU Mission Valley Campus Master Plan Project
San Diego County, California

Energy Delivered [MWh]				
	2016	2017	Average	Units
CO_2 Intensity Factor per Total Energy Delivered[1]	532	484	508	lbs CO_2/MWh delivered
% of Total Energy From Renewables	43.0%	45.0%	44.0%	
CO_2 Intensity Factor per Total Non-Renewable Energy[2]	933	880	907	lbs CO_2/MWh delivered
Calculated Intensity Factors for Total Energy Delivered[3]				
2030 RPS (60%)	373.3	352.0	362.9	lbs CO_2/MWh delivered

Notes:

[1]2016 and 2017 intensity factor per total energy delivered and percent of total energy from renewables information provided in the 2017 Sempra Energy (SDG&E) Corporate Responsibility Report, page 66. Available at: https://www.sempra.com/sites/default/files/content/files/node-page/file-list/2018/2017-corporate-sustainability-report-sempra.pdf. Accessed: September 2018.

[2] The emissions metric presented here is calculated based on the total CO_2 emissions divided by the energy delivered from non-renewable sources.

[3] The intensity factors for default RPS assumption are calculated by multiplying the percentage of energy delivered from non-renewable energy by the CO_2 emissions per total non-renewable energy metric calculated above. The emission factor presented here is 60% RPS for 2030. The estimate provided here and the PUP reports issued by SDG&E assume that renewable energy sources do not result in any CO_2 emissions.

Abbreviations:

CO_2 - carbon dioxide
GHG - greenhouse gases
lbs - pounds
MT - metric tonnes
MWh - megawatt-hour
PUP - Power/Utility Protocol
RPS - Renewable Portfolio Standards
SDG&E - San Diego Gas & Electric
SDSU - San Diego State University

Table 4-4d. Project GHG Emissions From Energy (Without **Design Features**)
SDSU Mission Valley Campus Master Plan Project
San Diego, California

CalEEMod® Land Use	Project Entitlement	CO_2e Emissions from Energy Use[1,2] (MT/yr)
Existing		
User Defined Recreational	Stadium	871
Parking Lot	Surface Lot	755
	Total	1,626
Project		
Condo/Townhouse High Rise	Market-based Housing (Condo/Townhouse High Rise)	77
Apartments Mid Rise	Market-based Housing (Mid-Rise Apartments)	2,136
Apartments High Rise	Market-based Housing (High-Rise Apartments)	2,359
Apartments Mid Rise	Student-focused Housing	319
General Office Building	Campus/Tech Office Space	3,858
Medical Office Building	Medical Office Space	331
Research & Development	Scientific Research	601
User Defined Recreational	Stadium	1,108
Hotel	Hotel	3,066
Regional Shopping Center	Retail (Regional Shopping Center)	183
Supermarket	Retail (Supermarket)	87
Health Club	Recreational Center	50
Enclosed Parking with Elevator	Structured Parking	3,354
City Park	Community Park/River Park	0
City Park	Active Parks	0
City Park	Additional Open Space	0
	Total	17,528

Notes:

[1] Energy usage for each land use was based on CalEEMod® databases, includes electricity and natural gas demand.

[2] Emissions were calculated using CalEEMod®. The structured parking emissions from energy use were calculated using updated mechanical ventilation electricity.

Abbreviations:

CalEEMod® - CALifornia Emissions Estimator MODel
CO_2e - carbon dioxide equivalents
GHG - greenhouse gases
MT - metric tons
SDSU - San Diego State University
yr - year

Table 4-5a. Project Trip Rates
SDSU Mission Valley Campus Master Plan Project
San Diego, California

Land Use Type	CalEEMod®		Units	Size Metric	Project Trip Rates (trips/size metric)[1,2,3,4]			% Trip Type[5]			Trip Length[6]		
	Land Use Category	Land Use Subtype			Weekday	Saturday	Sunday	Primary %	Diverted %	Pass-By %	C-C or H-W	C-W or H-S	C-NW or H-O
Market-based Housing	Residential	Condo/Townhouse High Rise	70	DU	4.92	4.43	4.43	100%	0%	0%	8.35486	8.35486	8.35486
		Mid-Rise Apartments	2,010	DU	4.92	4.43	4.43	100%	0%	0%	8.35486	8.35486	8.35486
		High-Rise Apartments	2,220	DU	4.92	4.43	4.43	100%	0%	0%	8.35486	8.35486	8.35486
Student-focused Housing		Mid-Rise Apartments	300	DU	3.61	3.28	3.28	100%	0%	0%	8.35486	8.35486	8.35486
Campus/Tech Office Space	Commercial	General Office Building	1,165	TSF	14.1	3.19	3.19	100%	0%	0%	8.35486	8.35486	8.35486
Medical Office	Commercial	Medical Office Building	100	TSF	47.1	11.6	11.6	100%	0%	0%	8.35486	8.35486	8.35486
Scientific Research	Commercial	Research & Development	301	TSF	6.56	1.07	1.07	100%	0%	0%	8.35486	8.35486	8.35486
Sports Stadium	Recreational	User Defined Recreational	14.82	acre	112.6	112.6	112.6	100%	0%	0%	15.00	0.00	0.00
Hotel	Recreational	Hotel	400	rooms	8.20	8.04	8.04	100%	0%	0%	8.35486	8.35486	8.35486
Retail	Retail	Regional Shopping Center	83	TSF	107	131	131	100%	0%	0%	8.35486	8.35486	8.35486
		Supermarket	12	TSF	134	223	223	100%	0%	0%	8.35486	8.35486	8.35486
Recreational Center	Recreational	Health Club	25	TSF	32.8	10.3	10.3	100%	0%	0%	8.35486	8.35486	8.35486
Structured Parking	Parking	Enclosed Parking Structure with Elevator	11,270	spaces	0.00	0.00	0.00	100%	0%	0%	NA	NA	NA
Community Park/River Park	Recreational	City Park	6	acre	4.10	10.33	10.33	100%	0%	0%	8.35486	8.35486	8.35486
Active Parks	Recreational	City Park	50	acre	41.0	103.0	103.0	100%	0%	0%	8.35486	8.35486	8.35486
Additional	Recreational	City Park	28	acre	0.00	0.00	0.00	100%	0%	0%	NA	NA	NA

Notes:

[1] Trip rates provided by Fehr & Peers. The 7% mixed use credit and 11% transit/bike/walk credit are applied to cumulative (i.e., primary) trips.

[2] The retail trip rates (supermarket and neighborhood retail) were calculated consistent with Fehr & Peers analysis showing that 60% of total trips for these land uses are primary (i.e., not pass-by) trips. The medical office space trip rates were calculated consistent with Fehr & Peers analysis showing that 32% of total trips are primary (i.e., not pass-by) trips.

[3] Trips to the structured parking are included in the other land uses, and therefore the structured parking does not generate any new trips.

[4] The "Additional" City Park represents parks that people would not be expected to drive to and therefore does not generate any new trips.

[5] The trip type was set to 100% primary to align with the VMT and trip data from Fehr & Peers.

[6] The trip length was calculated to align with the VMT and trip data from Fehr & Peers. The stadium VMT and trip data were calculated separately from the other land uses and thus is based on different data.

Abbreviations:

CalEEMod® - California Emissions Estimator Model
C-C - commercial-customer
C-NW -commercial-nonwork
C-W - commercial-work
DU - dwelling unit
H-O - home-other
H-S - home-shop
H-W - home-work
SDSU - San Diego State University
TSF - thousand square feet
VMT - vehicle miles traveled

Table 4-5b. Existing Condition Trip Rates
SDSU Mission Valley Campus Master Plan Project
San Diego, California

Land Use Type	CalEEMod®		Units	Size Metric	Project Trip Rates (trips/size metric)[1,2]			% Trip Type			Trip Length		
	Land Use Category	Land Use Subtype			Weekday	Saturday	Sunday	Primary %	Diverted %	Pass-By %	C-C or H-W	C-W or H-S	C-NW or H-O
Sports Stadium	Recreational	User Defined Recreational	15	acre	55.20	55.20	55.20	100%	0%	0%	15.00	0.00	0.00
Parking	Parking	Parking Lot	151	acre	0.00	0.00	0.00	0%	0%	0%	NA	NA	NA

Notes:

[1] Project trip rates derived from VMT encompassing events occurring in the existing stadium provided by Fehr & Peers.

[2] Trips to the parking lot are included in the other land uses, and therefore the parking lot does not generate any new trips.

Abbreviations:

CalEEMod® - California Emissions Estimator Model
C-C - commercial-customer
C-NW -commercial-nonwork
C-W - commercial-work
DU - dwelling unit
H-O - home-other
H-S - home-shop
H-W - home-work
TSF - thousand square feet
SDSU - San Diego State University

Table 4-5c. Project GHG Emissions From Traffic (Without **Design Features**)
SDSU Mission Valley Campus Project
San Diego, California

CalEEMod® Land Use	Project Entitlement	Vehicle Miles Traveled[1] (miles)	CO_2e Emissions Associated with Traffic[2] (MT/yr)
Existing			
User Defined Recreational	Stadium	4,520,880	1,946
Parking Lot[3]	Surface Lot	0	0
	Total	4,520,880	1,946
Project			
Condo/Townhouse High Rise	Market-based Housing (Condo/Townhouse High Rise)	1,017,575	300
Apartments Mid Rise	Market-based Housing (Mid-Rise Apartments)	29,218,944	8,620
Apartments High Rise	Market-based Housing (High-Rise Apartments)	32,271,669	9,521
Apartments Mid Rise	Student-focused Housing	3,207,564	946
General Office Building	Campus/Tech Office Space	38,810,617	11,450
Medical Office Building	Medical Office Space	11,242,767	3,317
Research & Development	Scientific Research	4,569,113	1,348
User Defined Recreational	Stadium	9,109,325	2,611
Hotel	Hotel	9,919,425	2,926
Regional Shopping Center	Retail (Regional Shopping Center)	28,755,348	8,483
Supermarket	Retail (Supermarket)	5,812,977	1,715
Health Club	Recreational Center	2,005,651	592
Enclosed Parking with Elevator[3]	Structured Parking	0	0
City Park	Community Park/River Park	107,292	32
City Park	Active Parks	8,927,569	2,634
City Park	Additional Open Space	0	0
	Total	184,975,838	54,496

Notes:

[1] VMT based on trip rates and total Project VMT from Fehr & Peers.

[2] Mobile emissions calculated using CalEEMod®.

[3] Trips to the parking are included in the other land uses, and therefore the parking does not generate any trips or emissions.

Abbreviations:

CalEEMod® - CALifornia Emissions Estimator MODel

CO_2e - carbon dioxide equivalents

GHG - greenhouse gases

MT - metric tons

yr - year

Table 4-6a. Project Water Usage
SDSU Mission Valley Campus Master Plan Project
San Diego, California

Project Entitlement	CalEEMod® Land Use Subtype	Indoor Water Use (gallons/year) [1,2]	Outdoor Water Use (gallons/year) [3]
Market-based Housing	Condo/Townhouse High Rise	3,648,625	2,875,275
	Mid-Rise Apartments	104,767,673	82,561,482
	High-Rise Apartments	115,713,550	91,187,308
Student-focused Housing	Mid-Rise Apartments	15,636,966	12,322,500
Campus/Tech Office Space	General Office Building	165,647,853	126,907,629
Medical Office	Medical Office Building	10,038,443	2,390,105
Scientific Research	Research & Development	118,399,902	0
Sports Stadium	User Defined Recreational	16,104,033	1,027,917
Hotel	Hotel	8,117,366	1,127,412
Retail	Regional Shopping Center	4,918,415	3,768,141
	Supermarket	1,183,375	45,749
Recreational Center	Health Club	1,182,863	906,226
Structured Parking	Enclosed Parking Structure with Elevator	0	0
Community Park/River Park	City Park	0	7,148,886
Active Parks	City Park	0	59,574,067
Additional	City Park	0	32,884,885
	Total	565,359,066	424,727,583

Notes:

[1] Water usage based on CalEEMod® indoor water use defaults.

[2] Consistent with the required California regulatory standards, the project assumed 20 percent reduction in the indoor water usage relative to the CalEEMod® defaults.

[3] Water usage based on CalEEMod® outdoor water use defaults.

Abbreviations:

CalEEMod® - California Emissions Estimator Model
SDSU - San Diego State University

 Ramboll

Table 4-6b. Existing Condition Water Usage
SDSU Mission Valley Campus Master Plan Project
San Diego, California

Project Entitlement	CalEEMod® Proposed Land Use Subtype	Total Indoor Water Use (gallons/year) [1,3]	Total Outdoor Water Use (gallons/year) [2,3]
Sports Stadium	User Defined Recreational	7,103,913	453,441
Parking	Parking Lot	0	0
	Total	7,103,913	453,441

Notes:
[1] Based on default CalEEMod® indoor water use.
[2] Based on default CalEEMod® outdoor water use.
[3] Per model defaults, there is no water use for parking land use.

Abbreviations:
CalEEMod® - California Emission Estimator Model
SDSU - San Diego State University

Table 4-6c. Project GHG Emissions From Water Use (Without **Design Features**)
SDSU Mission Valley Campus Project
San Diego, California

CalEEMod® Land Use	Project Entitlement	CO_2e Emissions from Water Use[2] (MT/yr)
Existing		
User Defined Recreational	Stadium	42
Parking Lot	Surface Lot	0
	Total	42
Project		
Condo/Townhouse High Rise	Market-based Housing (Condo/Townhouse High Rise)	18
Apartments Mid Rise	Market-based Housing (Mid-Rise Apartments)	521
Apartments High Rise	Market-based Housing (High-Rise Apartments)	575
Apartments Mid Rise	Student-focused Housing	78
General Office Building	Campus/Tech Office Space	817
Medical Office Building	Medical Office Space	40
Research & Development	Scientific Research	417
User Defined Recreational	Stadium	59
Hotel	Hotel	31
Regional Shopping Center	Retail (Regional Shopping Center)	24
Supermarket	Retail (Supermarket)	4
Health Club	Recreational Center	6
Enclosed Parking with Elevator	Structured Parking	0
City Park	Community Park/River Park	13
City Park	Active Parks	110
City Park	Additional Open Space	61
	Total	2,772

Notes:
[1] Emissions were calculated using CalEEMod®.
[2] Indoor water use includes 20% reduction.

Abbreviations:
CalEEMod® - CALifornia Emissions Estimator MODel
CO_2e - carbon dioxide equivalents
GHG - greenhouse gases
MT - metric tons
SDSU - San Diego State University
yr - year

Table 4-7a. Project Waste Disposed
SDSU Mission Valley Campus Master Plan Project
San Diego, California

Project Land Use	CalEEMod® Land Use Subtype	Waste Disposed[1] (tons/year)	Waste Disposed Assuming 75% Diversion[2,3,4] (tons/year)
Market-based Housing	Condo/Townhouse High Rise	32.2	16.1
	Mid-Rise Apartments	924.6	462.3
	High-Rise Apartments	1,021.2	510.6
Student-focused Housing	Mid-Rise Apartments	138.0	69.0
Campus/Tech Office Space	General Office Building	1,083.5	541.7
Medical Office	Medical Office Building	1,080.0	540.0
Scientific Research	Research & Development	22.9	11.4
Sports Stadium	User Defined Recreational	2,644.8	2,066.3
Hotel	Hotel	219.0	109.5
Retail	Regional Shopping Center	87.2	43.6
	Supermarket	67.7	33.8
Recreational Center	Health Club	142.5	71.3
Structured Parking	Enclosed Parking Structure with Elevator	0.0	0.0
Community Park/River Park	City Park	0.5	0.3
Active Parks	City Park	4.3	2.2
Additional	City Park	2.4	1.2
	Total	7,471	4,479

Notes:

[1] The solid waste generation in CalEEMod®, based on CalRecycle data, assumes a 50% diversion rate.

[2] Waste diversion rate is based on CalRecycle goal of 75% waste diverted by 2020. Available at: https://www.calrecycle.ca.gov/calendar/75percent. Accessed: September 2018.

[3] Waste diversion rate for the stadium is based on CalRecycle goal of 75% waste diverted by 2020 and a current diversion rate of 68%.

[4] Per model defaults, there is no waste disposed for parking land use.

Abbreviations:

CalEEMod® - California Emissions Estimator Model
SDSU - San Diego State University

Table 4-7b. Existing Condition Waste Disposed
SDSU Mission Valley Campus Master Plan Project
San Diego, California

Project Entitlement	CalEEMod® Land Use Subtype	Waste Disposed[1,2] (tons/year)
Sports Stadium	User Defined Recreational	1,166.7
Parking	Parking Lot	0.0

Notes:

[1] Based on default CalEEMod® solid waste generation.

[2] Per model defaults, there is no waste disposed for parking land use.

Abbreviations:

CalEEMod® - California Emissions Estimator Model

SDSU - San Diego State University

Table 4-7c. Project GHG Emissions From Waste (Without Design Features)
SDSU Mission Valley Campus Master Plan Project
San Diego, California

CalEEMod® Land Use	Project Entitlement	CO_2e Emissions Associated with Waste (MT/yr)
Existing		
User Defined Recreational	Stadium	587
Parking Lot	Surface Lot	0
	Total	**587**
Project		
Condo/Townhouse High Rise	Market-based Housing (Condo/Townhouse High Rise)	8
Apartments Mid Rise	Market-based Housing (Mid-Rise Apartments)	232
Apartments High Rise	Market-based Housing (High-Rise Apartments)	257
Apartments Mid Rise	Student-focused Housing	35
General Office Building	Campus/Tech Office Space	272
Medical Office Building	Medical Office Space	272
Research & Development	Scientific Research	6
User Defined Recreational	Stadium	1,039
Hotel	Hotel	55
Regional Shopping Center	Retail (Regional Shopping Center)	22
Supermarket	Retail (Supermarket)	17
Health Club	Recreational Center	36
Enclosed Parking with Elevator	Structured Parking	0
City Park	Community Park/River Park	0
City Park	Active Parks	1
City Park	Additional Open Space	1
	Total	**2,253**

Notes:

[1] Solid waste disposal emissions using default data in CalEEMod® were adjusted to include 75% waste diversion.

Abbreviations:

CalEEMod® - CALifornia Emissions Estimator MODel
CO_2e - carbon dioxide equivalents
GHG - greenhouse gases
MT - metric tons
SDSU - San Diego State University
yr - year

Table 4-8. Emergency Generator GHG Emissions
SDSU Mission Valley Campus Master Plan Project
San Diego, California

Equipment Type	Fuel Type	Size (hp)	Load Factor	Operation (hours/year)	Emission Factors (lb/hp-hr)			Emissions (MT/year)		
					CO_2	CH_4	CO_2e	CO_2	CH_4	CO_2e
Existing Emergency Generator[1]	Diesel	40	0.67	52	1.15	0.00	1.15	0.73	0.00	0.73
Project Emergency Generator[2]	Diesel	2,012	0.73	52	1.15	0.00	1.15	39.83	0.01	39.97

Conversion:

25 GWP CH_4/CO_2
453.592 g/lb
2204.62 lbs/MT
0.7457 kW/hp

Notes:

[1] Existing assumes one 40-hp emergency generator operating one hour per week.
[2] Project assumes one 1500 kW emergency generator operating one hour per week.

Abbreviations:

g - gram
hp - horsepower
hr - hour
kW - kilowatt
lb - pound
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalents
CH_4 - methane
GHG - greenhouse gases
GWP - global warming potential
MT - metric tons
SDSU - San Diego State University

Table 4-9. Summary of GHG Emissions (Without Design Features)
SDSU Mission Valley Campus Master Plan Project
San Diego, California

Emissions Category[1]	**Existing GHG Emissions**[2]	**Project GHG Emissions**[2]
	MT CO_2e/yr	**MT CO_2e/yr**
Area Sources	0	240
Energy Usage	1,626	17,528
Water	42	2,772
Waste Disposed	587	2,253
Traffic	1,946	54,496
Stationary	0.73	40
Operational Sub-Total	***4,202***	***77,328***
Construction Amortized[3]	--	1,077
Vegetation[3]	--	-26
Total[4]	**4,202**	**78,378**
Incremental Change in Emissions (MT CO_2e/yr)[5]	**74,176**	

Notes:
[1] One-time emissions (i.e., construction) and operational emissions were estimated using CalEEMod® for the build-out year.
[2] Emissions are presented as CO_2e, which include CO_2, CH_4, and N_2O emissions, weighted by their respective global warming
[3] One-time emissions from construction and vegetation sequestration were amortized over a 30-year period.
[4] Sum of annualized one-time emissions and operational emissions.
[5] Difference between the Project and Existing GHG emissions.

Abbreviations:
CalEEMod® - CALifornia Emissions Estimator MODel
CH_4 - methane
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalents
GHG - greenhouse gases
MT - metric tons
N_2O - nitrous oxide
SDSU - San Diego State University
yr - year

Table 4-10. Percent GHG Contributions (Without Design Features)
SDSU Mission Valley Campus Master Plan Project
San Diego, California

Emission Inventory[1]	GHG Emissions[1]	Project CO_2e Percentage Contribution to Existing Inventory
	MT CO_2e/yr	
Project Without Project Design Features[2]	78,378	--
City of San Diego - 2017[3]	10,158,000	0.77%
State of California - 2016[4]	429,400,000	0.02%
United States of America - 2017[5]	6,472,300,000	0.001%
Global - 2012[6]	53,937,187,680	0.0001%

Notes:

[1] CO_2e includes CO_2, CH_4, and N_2O emissions. For all emission inventories other than "Project," halogenated compounds, which are associated with industrial activity and not expected to be a component of Project emissions, are included . All species are weighted by their respective global warming potentials (GWP) to calculate CO_2e. All inventories other than the global inventories use GWPs from AR4. The global inventory uses the GWP from SAR. This has a minor impact on the overall emissions.

[2] Project inventory includes reduction from regulatory measures.

[3] City of San Diego. 2018 Climate Action Plan 2018 Annual Report Appendix. Available at: https://www.sandiego.gov/sites/default/files/city_of_san_diego_appendix_for_2018_cap_annual_report.pdf. Accessed March 2019.

[4] CARB. 2017. California Greenhouse Gas Emission Inventory - 2018 Edition. Available at: http://www.arb.ca.gov/cc/inventory/data/data.htm. Accessed: March 2019.

[5] USEPA. 2019. Draft Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2017. Available at: https://www.epa.gov/sites/production/files/2019-02/documents/us-ghg-inventory-2019-chapter-executive-summary.pdf. Accessed: March 2019.

[6] Joint Research Centre, European Commission. 2014. GHG (CO_2, CH_4, N_2O, F-gases) emission time series 1990-2012 per region/country. Emission Database for Global Atmospheric Research. Available at: http://edgar.jrc.ec.europa.eu/overview.php?v=GHGts1990-2012. Accessed: March 2019.

Abbreviations:

CARB - California Air Resources Board
CH_4 - methane
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalents
GHG - greenhouse gases
MT - metric tons
N_2O - nitrous oxide
SDSU - San Diego State University
USEPA - United States Environmental Protection Agency
yr - year

Table 5-1. GHG Reductions from Solar PV
SDSU Mission Valley Campus Master Plan Project
San Diego, California

Parameters		Units
Total Project Rooftop Area[1]	1,095,639	sqft
Rooftop Area for Solar Panels[1]	425,458	sqft
Portion of Rooftop Covered by Solar Panels	39%	
System Size[2]	6.5	MW
System Generation[3]	10,819	MWh/year
Annual GHG Emission Reduction[4]	1,793	MT CO_2e/yr

Notes:

[1] Project-specific data.

[2] The system size is based on the available roof space and Project design.

[3] System generation was determined using default commercial rooftop solar array assumptions in the National Renewable Energy Laboratory's PVWatts tool. Available at: http://pvwatts.nrel.gov/pvwatts.php.

[4] GHG emissions were calculated using a CO_2e weighted intensity factor for SDG&E which accounts for CO_2, N_2O, and CH_4 emissions rates under the 60% RPS for 2030.

Abbreviations:

CH_4 - methane	MWh - megawatt-hour
CO_2 - carbon dioxide	NO_2 - nitrogen dioxide
CO_2e - carbon dioxide equivalents	PV - photovoltaic
GHG - greenhouse gases	RPS - Renewable Portfolio Standards
kWh - kilowatt-hour	SDG&E - San Diego Gas & Electric
lb - pound	SDSU - San Diego State University
MT - metric tons	sqft - square feet
MW - megawatt	yr - year

Conversion Factors:

lb/MT	2204.62
MT/gram	1.00E-06
MWh to KWh	0.001
(lbs CO_2e/MWh delivered)	365.37
foot/meter	3.28

Table 5-2. GHG Reductions from EV Chargers
SDSU Mission Valley Campus Master Plan Project
San Diego, California

Parameters		Unit
GHG Emissions Reduction from Replacement of Gasoline Vehicle with Electric Vehicle		
SDG&E Electricity Emission Factor[1]	0.17	MT CO_2e/MWh
Fuel Economy of Electric Vehicle[2]	0.25	kWh/mi
Gasoline/Diesel CO_2e Emission while Running[3]	218	g/mi
Annual VMT (from gasoline/diesel) Reduction per Parking Spot[4]	45,625	mi/charging station/yr
Number of Parking Spots Provided Chargers[5]	252	charging stations
Annual VMT (from gasoline/diesel) Reduction from All Stations (Based on Charge)	11,497,500	mi/yr
Calculated Benefit from Installing On-Site Electric Vehicle Charging Stations		
GHG Emissions of Gasoline/Diesel Vehicle[6]	2,507	MT CO_2e/yr
GHG Emissions of Electric Vehicle[7]	476	
Annual GHG Emissions Reduction	**2,031**	MT CO_2e/yr

Notes:

[1] CO_2e weighted intensity factor for SDG&E accounts for CO_2 and CH_4 emissions rates under the 60% RPS for 2030.

[2] US Department of Energy, 2013. Benefits and Considerations of Electricity as a Vehicle Fuel. Available at: http://www.afdc.energy.gov/fuels/electricity_benefits.html. Accessed: February 2019.

[3] Running exhaust emission rates for CO_2, CH_4, and N_2O were calculated using EMFAC2014 for light duty gasoline- and diesel-powered vehicles in San Diego County, aggregated for all models and speeds, averaged over all seasons in calendar year 2035. Emission rate was converted to CO_2e using the Fourth Assessment Report Global Warming Potentials. Available at: https://www.arb.ca.gov/msei/msei.htm. Accessed: February 2019.

[4] Annual VMT reduction calculated based on assuming five hours of charge time for a Level 2 charging station that charges at a rate of 25 miles of driving range per hour.

[5] Number of charging stations based on project design feature.

[6] GHG emissions calculated using annual VMT reduction at all stations and CO_2e emission rate.

[7] GHG emissions calculated using annual VMT reduction at all stations, fuel economy of electric vehicles, along with SDG&E electricity CO_2e emission factor.

Abbreviations:

ACC - Advanced Clean Cars
CARB - California Air Resources Board
CH_4 - methane
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalents
EMFAC - California Air Resources Board Emissions Factor Model
EV - electric vehicle
g - grams
GHG - greenhouse gases
kWh - kilowatt-hour
lb - pound
mi - miles
MT - metric tons
MWh - megawatt-hour
RPS - Renewable Portfolio Standards
SDG&E - San Diego Gas & Electric
SDSU - San Diego State University
VMT - vehicle miles travelled
yr - year

Conversion Factors:

lb/MT	2204.62
MT/gram	1.00E-06
MWh to KWh	0.001
(lbs CO_2e/MWh delivered)	365.37

Table 5-3. GHG Reductions from TDM Program
SDSU Mission Valley Campus Master Plan Project
San Diego, California

Parameters		Unit
GHG Emissions Reduction from TDM Program		
Gasoline/Diesel CO_2e Emission while Running[1]	218	g/mi
Annual VMT (before TDM)	184,975,838	mi/yr
TDM Program Reduction[2]	14.41%	%
Annual VMT Reduction from TDM Program	26,655,018	mi/yr
Calculated Benefit from TDM Program		
Annual GHG Emissions Reduction	5,812	MT CO_2e/yr

Notes:

[1] Running exhaust emission rates for CO_2, CH_4, and N_2O were calculated using EMFAC2014 for light duty gasoline-and diesel-powered vehicles in San Diego County, aggregated for all models and speeds, averaged over all seasons in calendar year 2035. Emission rate was converted to CO_2e using the Fourth Assessment Report Global Warming Potentials. Available at: https://www.arb.ca.gov/msei/msei.htm. Accessed: February 2019.

[2] Reduction is based on Fehr & Peers TDM assessment.

Abbreviations:

CARB - California Air Resources Board
CH_4 - methane
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalents
EMFAC - California Air Resources Board Emissions Factor Model
g - grams
GHG - greenhouse gases
lb - pound
mi - miles
MT - metric tons
TDM - Transportation Demand Management
VMT - vehicle miles travelled
SDSU - San Diego State University
yr - year

Conversion Factors:

lb/MT	2204.62
MT/gram	1.00E-06

Table 5-4. Summary of GHG Reductions from Project Design Features
SDSU Mission Valley Campus Master Plan Project
San Diego, California

Project Design Feature[1]	GHG Reduction ($MT\ CO_2e/yr$)
Rooftop Solar PV	1,793
EV Chargers	2,031
TDM Program	5,812
Total	**9,636**

Notes:
[1] The project design features are presented in greater detail in the previous tables.

Abbreviations:
CO_2e - carbon dioxide equivalents
EV - electric vehicle
GHG - greenhouse gases
MT - metric tons
PV - Solar Photovoltaic
SDSU - San Diego State University
TDM - Transportation Demand Management

Table 6-1. Summary of GHG Emissions (With Project Design Features)
SDSU Mission Valley Campus Master Plan Project
San Diego, California

Emissions Category[1]	Existing GHG Emissions[2]	Project GHG Emissions[2,3]
	MT CO_2e/yr	MT CO_2e/yr
Area Sources	0	240
Energy Usage	1,626	17,528
Solar PV	--	*-1,793*
Water	42	2,772
Waste Disposed	587	2,253
Traffic	1,946	54,496
EV charging	--	*-2,031*
TDM Program	--	*-5,812*
Stationary	0.73	40
Operational Sub-Total	***4,202***	***67,692***
Construction Amortized[4]	--	1,077
Vegetation[4]	--	-26
Total[5]	**4,202**	**68,742**

Notes:
[1] One-time emissions (i.e., construction) and operational emissions were calculated using CalEEMod® for the build-out year.
[2] Emissions are presented as CO_2e, which include CO_2, CH_4, and N_2O emissions, weighted by their respective global warming potentials.
[3] Emissions reductions associated with project design features are shown as negative values due to the decrease in emissions.
[4] One-time emissions from construction and vegetation sequestration were amortized over a 30-year period.
[5] Sum of annualized one-time emissions and operational emissions.

Abbreviations:
CalEEMod® - CALifornia Emissions Estimator MODel
CH_4 - methane
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalents
EV - electric vehicle
GHG - greenhouse gases
MT - metric tons
N_2O - nitrous oxide
PV - photovoltaic
SDSU - San Diego State University
TDM - Transportation Demand Management
yr - year

Table 6-2. Percent GHG Contributions (With Project Design Features)
SDSU Mission Valley Campus Master Plan Project
San Diego, California

Emission Inventory[1]	GHG Emissions[1] MT CO_2e/yr	Project CO_2e Percentage Contribution to Existing Inventory
Project With Project Design Features[2]	68,742	--
City of San Diego - 2017[3]	10,158,000	0.68%
State of California - 2016[4]	429,400,000	0.02%
United States of America - 2017[5]	6,472,300,000	0.001%
Global - 2012[6]	53,937,187,680	0.0001%

Notes:

[1] CO_2e includes CO_2, CH_4, and N_2O emissions. For all emission inventories other than "Project," halogenated compounds, which are associated with industrial activity and not expected to be a component of Project emissions, are included . All species are weighted by their respective global warming potentials (GWP) to calculate CO_2e. All inventories other than the global inventories use GWPs from AR4. The global inventory uses the GWP from SAR. This has a minor impact on the overall emissions.

[2] Project inventory includes reduction from regulatory measures.

[3] City of San Diego. 2018 Climate Action Plan 2018 Annual Report Appendix. Available at: https://www.sandiego.gov/sites/default/files/city_of_san_diego_appendix_for_2018_cap_annual_report.pdf. Accessed March 2019.

[4] CARB. 2017. California Greenhouse Gas Emission Inventory - 2018 Edition. Available at: http://www.arb.ca.gov/cc/inventory/data/data.htm. Accessed: March 2019.

[5] USEPA. 2019. Draft Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2017. Available at: https://www.epa.gov/sites/production/files/2019-02/documents/us-ghg-inventory-2019-chapter-executive-summary.pdf. Accessed: March 2019.

[6] Joint Research Centre, European Commission. 2014. GHG (CO_2, CH_4, N_2O, F-gases) emission time series 1990-2012 per region/country. Emission Database for Global Atmospheric Research. Available at: http://edgar.jrc.ec.europa.eu/overview.php?v=GHGts1990-2012. Accessed: March 2019.

Abbreviations:

CalEEMod® - CALifornia Emissions Estimator MODel
CARB - California Air Resources Board
CH_4 - methane
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalents
GHG - greenhouse gases
kW - kilowatt
MT - metric tons
N_2O - nitrous oxide
SDSU - San Diego State University
USEPA - United States Environmental Protection Agency
yr - year

APPENDIX A
CONSISTENCY ANALYSIS FOR DRAFT MVCP AND ADOPTED CITY CAP

Appendix A-1 – Consistency with the City of San Diego's Mission Valley Community Plan

Measure/Strategy		Description	Consistency Analysis
City of San Diego's Mission Valley Community Plan[1]			
DG-27	Solar Access and Energy Conservation	Employ climate-appropriate design strategies to allow for passive solar access and energy-efficient installations, including: - Allowing for adequate access to light and air so that daylight is able to reach all living spaces for part of the day, and adequate ventilation is provided when windows are open. Prioritize south-facing windows and private open space. - Siting building so that plazas and other public spaces will not be kept in shadows at all times and will not experience excessive wind conditions. - Locating parking areas with large paved surfaces to the east and north of adjacent buildings to reduce solar reflection on buildings. - Placing evergreen trees on the west side of buildings to provide protection from prevailing winds.	**Consistent.** The proposed project would comply with applicable standards set forth in the California Building Code (Cal. Code Regulations, Title 24, Parts 6 and 11), which contributes to the energy conservation noted in this measure. As to the building and site orientation recommendations contained in this measure, the layout of the project's development areas has been designed to maximize the unique infill opportunity presented at this Mission Valley location. The project proposes a compatible mix of land uses that would intersect in a campus setting.
DG-28	Energy	Consider clustering buildings to use a common heating/cooling source.	**Consistent.** The proposed project consists of a mixed-use development, which locates buildings in close proximity. The design of the site will ensure the optimum heating and cooling systems are incorporated. Thus, the nature of the proposed project complies with this measure.

[1] Mission Valley Community Plan. 2019. Final Draft for Community Review. June 2019. Available at: https://www.sandiego.gov/planning/community/cpu/missionvalley. Accessed June 2019.

Measure/Strategy		Description	Consistency Analysis
DG-34	Roof Surfaces	Consider locating sloped roof surfaces facing the south, and at an angle that can accommodate solar panel or film installation for renewable energy generation or centralized solar hot water heating.	**Consistent.** The proposed project would install solar photovoltaic (PV) panels throughout the development areas, and roof surfaces with appropriate attributes for solar generation would be selected. For more information on the attributes of the solar design commitment, please see **Section 5.1**.
DG-40	Operable windows	Wherever applicable, provide operable windows that allow natural ventilation and potentially eliminate the need for mechanical ventilation. If mechanical systems are necessary, use energy-efficient and low emission heating, ventilation, and air conditioning (HVAC) systems.	**Consistent.** Project development areas would maximize natural ventilation. Mechanical systems also would be designed and built according to all applicable building code and energy efficiency standards (see, e.g., Cal. Code Regulations, Title 24, Parts 6 and 11).
DG-45	Energy and Building Materials	Use building materials which will act as insulators or conductors, depending on energy needs.	**Consistent.** Project development areas would meet the applicable requirements of the California Building Code (Cal. Code Regulations, Title 24, Parts 6 and 11), which includes requirements for building materials.
DG-62	Sustainable Materials	Where possible, use sustainable building materials to the maximum extent feasible. Incorporate recycled, renewable, sustainable, and non-toxic/low-VOC (volatile organic compound) materials. Use of locally harvested and/or manufactured materials is desired.	**Consistent.** The proposed project would comply with applicable standards set forth in the California Building Code (Cal. Code Regulations, Title 24, Parts 6 and 11), which includes requirements for building materials. In addition, the proposed project would comply with applicable San Diego Air Pollution Control District (SDAPCD) rules governing VOC content of coatings. Where applicable, compliance with the Buy Clean California Act (AB 262, 2017) also would be required to aid in the reduction of GHG emissions associated with the manufacture and transport of products used in public works projects.

Measure/Strategy		Description	Consistency Analysis
DG-63	Sustainable Landscaping	Provide on-site landscaping improvements that minimize heat gain and provide attractive and context sensitive landscape environments, by: - Building roof gardens, eco-roofs, or other vegetated roof systems to help reduce the solar heat gain of building roofs and to serve as shared open space. - Minimizing impervious surfaces that have large thermal gain.	**Consistent.** The proposed project integrates extensive parks and landscaping, including the planting of new, on-site trees. (See, e.g., EIR Section 2.0, Project Description.) Further, project design parameters do not preclude the use of vegetated roofing systems; the installation of such systems would be determined on a building-by-building basis, following consideration of site orientation, building use, available rooftop space (following PV installation), and other factors. In addition, the proposed project would comply with applicable requirements of the CalGreen Building Standards Code (Cal. Code Regulations, Title 24, Part 11), which address the reduction of impervious surfaces. Site development is compact by design, in order to maximize the available infill opportunity. Impervious surfaces would be utilized where needed, and complemented by the proposed extensive park areas along the San Diego River.
DG-64	Water Efficiency and Conservation	Install water saving appliances and systems such as grey water systems, moisture-sensitive irrigation rainwater cisterns, and low-flow toilets and faucets. Any exterior systems should be integrated into building design.	**Consistent.** The proposed project would comply with applicable requirements of the California Building Code (Cal. Code Regulations, Title 24, Parts 6 and 11), and the City of San Diego's (City) Climate Action Plan (CAP) Checklist, which include requirements for water management, efficiency and conservation.

Measure/Strategy		Description	Consistency Analysis
DG-67	Energy Generation	Integrate energy generation and sustainability such as solar, wind, geothermal or other technologies into the overall building design consistent with the architectural design.	**Consistent.** The proposed project would install solar PV panels through the development areas. For more information on the attributes of the solar design commitment, please see **Section 5.1**.
DG-68	Carbon Sequestration	Incorporate new trees into site plans that have the potential for storage and sequestration of high levels of carbon.	**Consistent.** The proposed project includes planting of new trees (approximately 3.5 times the number of new trees compared to what currently exists at the site).
DG-69	Zero Net Energy Buildings	Strive for zero net energy in a building design.	**Consistent.** Project development areas would incorporate energy efficiency measures in compliance with the version of the California Building Code (Cal. Code Regulations, Title 24, Parts 6 and 11) applicable at the time of building permit application, and incorporate solar PV panels beyond what is required by existing regulatory standards. It also is noted that the 2019 Title 24, Part 6 standards – which go into effect on January 1, 2020 – include zero net electricity requirements for low-rise residential buildings (3 stories or less).

Measure/Strategy		Description	Consistency Analysis
DG-73	Mobility Hubs	Design areas around trolley stations to provide for a range of services that can improve first-last mile connections. This includes drop-off/pick-up areas for ride-hailing and shuttle services, space for scooter- and bikeshare storage, parking spaces dedicated to carsharing services, charging stations, and package pick-up areas.	**Consistent.** The proposed project site is located near the existing, underutilized Metropolitan Transit System (MTS) Green Line Stadium Station, and would provide an enhanced pedestrian connection to this station. The proposed project also would incorporate connectivity as part of the project design, which includes establishing a sustainable, walkable, and transit-oriented campus with enriched pedestrian spaces, walking paths and trails, as well as electric vehicle charging stations. The project's Transportation Demand Management (TDM) Program also includes elements such as bicycle racks and secure bicycle parking; showers and lockers for employees; a transportation corridor and an information-sharing website and kiosks; coordination with the SANDAG's iCommute program; guaranteed rides home; unbundled residential parking; and, metered and time-limited on-street parking.
RES-4	Residential Development	Affordable housing is encouraged to be built on site.	**Consistent.** As required by Measure G, the proposed project is designed consistent with the City's affordable housing requirements (i.e., 10% of total residential units).

Measure/Strategy		Description	Consistency Analysis
GBP-1	Green Building Practices	The use of sustainable building practices is highly encouraged. New buildings should strive to qualify for LEED accreditation.	**Consistent.** The proposed project would comply with applicable green building practices set forth in the California Building Code (Cal. Code Regulations, Title 24, Parts 6 and 11). Additionally, individual buildings within the project development area would be designed to achieve LEED equivalent standards (Silver minimum); and, the project – as a whole – would be designed to achieve LEED-Neighborhood Design equivalent standards (Silver minimum).
GBP-3	Green Building Practices	New development should not inhibit the solar access of neighboring buildings to the maximum extent practical.	**Consistent.** The proposed project is designed to not inhibit solar access of neighboring buildings to the maximum extent practical.
BIC-1	Bicycling	New development required to build 10 long-term bicycle parking spaces should provide a sheltered Bike Kitchen – a place to use tools and repair bicycles.	**Consistent.** The proposed project would meet, and exceed, the number of bicycle parking spaces per dwelling unit specified in the City of San Diego Municipal Code. The proposed project also would include a place to use tools and repair bicycles.
BIC-3	Bicycling	Access plans for new development should clearly identify ingress and egress for bicycles, with minimum interaction with vehicles.	**Consistent.** The proposed project incorporates bicycle paths and ingress/egress points with wayfinding to minimize interaction with vehicles.
BIC-4	Bicycling	New development should provide connections to bicycle trails and routes per the San Diego Regional Bicycle Plan. Open spaces should also be located to abut or provide direct access to bicycle facilities.	**Consistent.** The proposed project incorporates bicycle paths and ingress/egress points. In addition, a hike-and-bike trial would be located throughout the open space portions of the proposed project.

Measure/Strategy		Description	Consistency Analysis
PRK-6	Parking	Parking areas should be distributed throughout a project site to avoid large contiguous parking areas and to integrate landscaping. Each parking area should include no more than 30 percent of the project's parking spaces.	**Consistent.** The proposed project integrates landscaping into the project site and disperses parking throughout the site. Notably, many of the parking areas consist of multi-level parking garages that are consolidated, allowing additional space for landscaping, paseos, and other open areas.
PRK-8	Parking	A minimum of 10 percent landscaping of the parking lot area is encouraged.	**Consistent.** The proposed project integrates landscaping into the project site, including in the parking areas.
SMC-2	Smart Cities	For energy efficiency and to minimize light pollution, lighting with adaptive controls should be considered.	**Consistent.** The proposed project would include adaptive lighting controls, where appropriate and feasible, in order to maximize energy efficiency and minimize light pollution. In addition, the proposed project would comply with applicable energy efficiency standards set forth in the California Building Code (Cal. Code Regulations, Title 24, Parts 6 and 11), which address lighting energy efficiency.
SMC-1	Smart Cities	Consider providing priority parking and charging stations (preferably solar) to promote sustainable practices and accommodate the use of Electric Vehicles (EVs), including smaller short-distance neighborhood electric vehicles.	**Consistent.** The proposed project would include 503 parking spaces that are EV-ready, of which 252 spaces are equipped with EV charging stations.
PRK-4	Parking	New development should consider designating priority electric vehicle and zero emissions vehicle parking.	**Consistent.** The proposed project would designate certain parking spaces in prioritized locations for electric vehicles and zero emission vehicles.
PRK-2	Parking	New development should consider unbundled parking to offset development costs and encourage use of alternative transportation modes.	**Consistent.** The project's Transportation Demand Management (TDM) Program requires that residential parking be unbundled from unit counts.

Measure/Strategy		Description	Consistency Analysis
TDM-1	Transportation Demand Management	New development considering community circulators as a TDM measure should evaluate a coordinated effort with additional properties to expand the service and access more community destinations.	**Consistent.** This measure is not applicable because the proposed project does not propose a community circulator as a part of its TDM program. The proposed project's TDM program includes several other measures that enhance mobility throughout the project site.
TDM-2	Transportation Demand Management	New development should consider developing and implementing an approved TDM Plan designed to reduce peak period automobile use and lower the minimum parking requirement. Reference San Diego Municipal Code Chapter 14, Article 2, Division 5.	**Consistent.** The project as developed a TDM plan which included various measures aimed at reducing peak period single occupancy automobile use and reducing parking needs.
TDM-3	Transportation Demand Management	New development should incorporate mobility hub features such as EV chargers, rideshare pick-up/drop-off space, bicycle parking, and transit information on development.	**Consistent.** The project will provide EV chargers in the residential, retail, office, and stadium parking areas, as well as, rideshare pick-up/drop-off space to serve these uses. Residential bicycle storage will be provided in residential parking areas and long-term and short-term bicycle parking will be available for public use at various locations in the site. Transit information will be provided by the project's Transportation Coordinator and will be made available to all project employees and residents.
TDM-4	Transportation Demand Management	New development should designate visible space along the property frontage to allow for staging of shared vehicles, bikes, and scooters.	**Consistent.** Visible space for the staging of shared vehicles, bikes, and scooters will be provided along the project frontage and along the project shared-use path that connects the project's land uses and the trolley station, as well as, other locations throughout the site as needed.

Measure/Strategy		Description	Consistency Analysis
TDM-5	Transportation Demand Management	New development should consider participating in existing TDM programs, including but not limited to those overseen by SANDAG and MTS, in order to: • Encourage rideshare and carpool for major employers and employment centers. • Promote car/vanpool matching services. • Continue promotion of SANDAG's guaranteed ride home for workers who carpool throughout Mission Valley. • Provide flexible schedules and telecommuting opportunities for employees.	**Consistent.** The project's Transportation Coordinator will encourage residents and employees to participate in rideshare and carpool services and promote SANDAG's guaranteed ride home program. Additionally, the Transportation Coordinator will encourage employers to provide flexible schedules and telecommuting opportunities.
TDM-6	Transportation Demand Management	New development should provide flexible curb space in commercial/retail and residential areas to meet the needs of shared mobility services and the changing demands of users.	**Consistent.** Flexible curb space will be provided in the commercial/retail and residential areas of the project in order to accommodate TNC loading and unloading operations, deliveries, and other loading activities.
TDM-7	Transportation Demand Management	New development should post information related to available transit service and bicycle infrastructure as a means to encourage use of alternative transportation modes.	**Consistent.** As discussed in relation to measure TDM-3, the project's Transportation Coordinator will provide information related to available transit service and bicycle infrastructure to all residents and employees.
TDM-8	Transportation Demand Management	Employers should consider providing "parking cash out" options to employees—option for employees to receive the cash value of employer-paid parking subsidies in lieu of a parking spot—as an alternative to providing free or subsidized parking or transit passes.	**Consistent.** Employers that rent office space on the project site will be educated about this program by the Transportation Corridor and can decide to participate in either of the programs if they choose to do so.

Appendix A-2 – Consistency with the City of San Diego's CAP Checklist

Measure/Strategy		Description	Consistency Analysis
City of San Diego's CAP Checklist			
Strategy 1	Energy and Water Efficient Buildings [Roofing]	- Would the project include roofing materials with a minimum 3-year aged solar reflection and thermal emittance or solar reflection index equal to or greater than the values specified in the voluntary measures under California Green Building Standards Code (Attachment A)?; OR - Would the project roof construction have a thermal mass over the roof membrane, including areas of vegetated (green) roofs, weighing at least 25 pounds per square foot as specified in the voluntary measures under California Green Building Standards Code?; OR - Would the project include a combination of the above two options?	**Consistent.** Project development areas would comply with one, both or a combination of the roofing options provided in this strategy, as a condition of building permit issuance.
Strategy 1	Energy and Water Efficient Buildings [Residential: Plumbing fixtures and fittings]	Residential buildings: - Kitchen faucets: maximum flow rate not to exceed 1.5 gallons per minute at 60 psi; - Standard dishwashers: 4.25 gallons per cycle; - Compact dishwashers: 3.5 gallons per cycle; and - Clothes washers: water factor of 6 gallons per cubic feet of drum capacity?	**Consistent.** The project's residential development areas would comply with the maximum flow rates for plumbing fixtures and appliances provided in this strategy, as a condition of building permit issuance.

Measure/Strategy		Description	Consistency Analysis
Strategy 1	Energy and Water Efficient Buildings [Non-residential: Plumbing fixtures and fittings]	Non-residential buildings: - Plumbing fixtures and fittings that do not exceed the maximum flow rate specified in Table A5.303.2.3.1 (voluntary measures) of the California Green Building Standards Code (See Attachment A); and - Appliances and fixtures for commercial applications that meet the provisions of Section A5.303.3 (voluntary measures) of the California Green Building Standards Code (See Attachment A)?	**Consistent.** The project's nonresidential development areas would comply with the maximum flow rates for plumbing fixtures and appliances provided in this strategy, as a condition of building permit issuance.
Strategy 3	Bicycling, Walking, Transit, & Land Use [EV Chargers]	Multiple-family projects of 17 dwelling units or less: Would 3% of the total parking spaces required, or a minimum of one space, whichever is greater, be provided with a listed cabinet, box or enclosure connected to a conduit linking the parking spaces with the electrical service, in a manner approved by the building and safety official, to allow for the future installation of electric vehicle supply equipment to provide electric vehicle charging stations at such time as it is needed for use by residents?	**Not Applicable.** This strategy is not applicable because the proposed project includes more than 17 dwelling units.
Strategy 3	Bicycling, Walking, Transit, & Land Use [EV Chargers]	Multiple-family projects of more than 17 dwelling units: Of the total required listed cabinets, boxes or enclosures, would 50% have the necessary electric vehicle supply equipment installed to provide active electric vehicle charging stations ready for use by residents?	**Consistent.** The proposed project would provide a minimum of 85 EV-ready spaces with charging stations in the residential development areas.
Strategy 3	Bicycling, Walking, Transit, & Land Use [EV Chargers]	Non-residential projects: Of the total required listed cabinets, boxes or enclosures, would 50% have the necessary electric vehicle supply equipment installed to provide active electric vehicle charging stations ready for use?	**Consistent.** The proposed project would provide a minimum of 167 EV-ready spaces with charging stations in the non-residential development areas.

Measure/Strategy		Description	Consistency Analysis
Strategy 3	Bicycling, Walking, Transit & Land Use [Bicycle Parking]	Bicycle Parking Spaces: Would the project provide more short- and long-term bicycle parking spaces than required in the City's Municipal Code (Chapter 14, Article 2, Division 5)?	**Consistent.** The proposed project would meet, and exceed, the number of bicycle parking spaces per dwelling unit specified in the San Diego Municipal Code.
Strategy 3	Bicycling, Walking, Transit & Land Use [Shower facilities]	If the project includes nonresidential development that would accommodate over 10 tenant occupants (employees), would the project include changing/shower facilities in accordance with the voluntary measures under the California Green Building Standards Code as shown in the table?	**Consistent.** The proposed project's non-residential development areas would provide changing/shower facilities as required by the referenced CalGreen provision, as a condition of building permit issuance.
Strategy 3	Bicycling, Walking, Transit & Land Use [Parking spaces]	Designated Parking Spaces: If the project includes a nonresidential use in a TPA, would the project provide designated parking for a combination of low-emitting, fuel-efficient, and carpool/vanpool vehicles in accordance with the table?	**Consistent.** The proposed project's non-residential development areas would provide designated parking for a combination of the specified vehicles, as a condition of building permit issuance.

Measure/Strategy		Description	Consistency Analysis
Strategy 3	Bicycling, Walking, Transit & Land Use [TDM]	Transportation Demand Management Program. If the project would accommodate over 50 tenant-occupants (employees), would it include a transportation demand management program that would be applicable to existing tenants and future tenants that includes the components listed in the CAP Checklist?	**Consistent.** A Transportation Demand Management Program has been designed for the proposed project. The TDM program includes: • Neighborhood Site Enhancement – Includes new bike facilities, dedicated land for bicycle/multi-use trails, bicycle parking, and increased intersection density. Also includes: ○ Traffic Calming ○ Car Share ○ Pedestrian Network • Parking Policy/Pricing ○ Unbundled Parking ○ Meter On-Street Parking • Commute Trip Reduction ○ TDM Marketing with Transportation Coordinator ○ Carpool Matching/Guaranteed Ride Home ○ Bicycle Share ○ School Pool ○ Hotel Shuttle Service

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MEMORANDUM

To:	Laura Shinn, San Diego State University
From:	Samantha Wang, Dudek
Subject:	San Diego State University Mission Valley Campus Master Plan Project, City of San Diego Climate Action Plan Evaluation
Date:	June 7, 2019
cc:	Jennifer Reed, Sean Kilkenny, Dudek
Attachments:	A - Figure 1 Vicinity Map B - City of San Diego Transit Priority Areas per Senate Bill 743 C - City of San Diego Climate Action Plan Consistency Checklist

This memorandum serves to evaluate whether San Diego State University's (SDSU) Mission Valley Campus Master Plan Project (proposed project) would conflict with the City of San Diego's (City) Climate Action Plan (CAP), as contemplated by Section VIII, Item b) of Appendix G of the State California Environmental Quality Act (CEQA) Guidelines. The evaluation provided by this memorandum has been prepared because the voter-approved SDSU West Campus Research Center, Stadium and River Park Initiative (also referred to as, Measure G) conditions the sale and development of the project site upon compliance with the City's greenhouse gas (GHG) emission reduction goals. As demonstrated below, the proposed project would not conflict with the City's CAP and would implement multiple design features and strategies that are consistent with those identified by the City for achievement of its GHG reduction goals.

1 Project Description

The proposed project is referenced in San Diego Municipal Code Section 22.0908, Sale of Real Property to SDSU, which was adopted after the SDSU West Campus Research Center, Stadium, and River Park Initiative (Measure G) was approved by the voters of the City of San Diego on November 6, 2018.

The proposed project is located south of Friars Road, west of Interstate (I) 15, north of the San Diego River, and east of the existing Fenton Marketplace shopping center, in the Mission Valley Community Plan Area. See Figure 1, Vicinity Map, provided in Attachment A. The project entails the planning, construction, and operation of the proposed SDSU Mission Valley Campus Master Plan, which would include a mixed-use campus, research park, and Stadium to support SDSU's education, research, entrepreneurial, technology, and athletics programs that can no longer be accommodated at SDSU's existing 287-acre main campus. Specifically, the proposed project would include:

(a) approximately 84 acres of open space, including shared SDSU/community active and passive parks and recreation fields, the approximate 34-acre San Diego River Park, and pedestrian, hiking, and biking trails;[1]

[1] The City would remain the owner of the approximate 34-acre San Diego River Park located immediately adjacent to and south of the project site and north of the San Diego River. As part of California State University's (CSU) purchase of the property comprising the project site, CSU/SDSU would revitalize, restore, and maintain the San Diego River Park, which would be retained by the City in fee ownership.

(b) approximately 1.565 million square feet of campus uses for education, research, entrepreneurial, and technology programs;

(c) construction of a new, multipurpose 35,000-capacity Stadium and the corresponding demolition of the existing San Diego County Credit Union (SDCCU) Stadium (formerly, “Qualcomm Stadium”);

(d) approximately 4,600 residential homes for student, faculty, staff, including market-rate, workforce, and affordable homes, in proximity to a vibrant university village atmosphere;

(e) two hotels with approximately 400 hotel rooms to support campus visitors and stadium-related events, provide additional conference facilities, and serve as an incubator for graduate and undergraduate students in SDSU’s hospitality and tourism management program;

(f) approximately 95,000 square feet of community-serving retail space to support campus, stadium, and related facilities;

(g) trolley/transit opportunities to minimize vehicular traffic use by using the existing underutilized Metropolitan Transit System’s (MTS) Green Line and Stadium Trolley station, accommodating the planned Purple Line transit station, and providing an enhanced pedestrian connection to the existing light rail transit center; and

(h) associated infrastructure, utilities, facilities, and other amenities.

2 Evaluation of the City of San Diego’s Climate Action Plan

As described in Section 1 of this memorandum, the proposed project is the establishment of a new California State University (CSU) campus for SDSU at the Mission Valley site, as contemplated by Measure G and codified by San Diego Municipal Code Section 22.0908. Section 22.0908 sets forth the conditions under which the City is directed to sell the site to CSU/SDSU.

CSU is a state agency and, therefore, not subject to local ordinances, regulations, policies, and rules, including zoning and land use regulations, development regulations, subdivision regulations, facilities benefit fee assessments, and other regulations, rules, fees, and exactions that might be imposed by a local agency in connection with the regulation of land use and development. However, given the unique circumstances and opportunities presented and to implement the clear desire of the local electorate, the development features and framework set forth in San Diego Municipal Code Section 22.0908 will be included in the Purchase and Sale Agreement transferring ownership of the project site from the City of San Diego to CSU/SDSU. Adherence to the City’s CAP Consistency Checklist is required by Measure G, which, as mentioned above, conditions the sale and development of the project site upon compliance with the City’s GHG emission reduction goals. The CAP is the primary vehicle by which the City establishes its GHG reduction goals and outlines the emission reduction strategies necessary for attainment of those goals.

As background, the City adopted its CAP in 2015, which was followed by the “CAP Consistency Checklist Questions” on July 12, 2016, a document which was subsequently updated in June 2017. The CAP identifies a comprehensive set of goals, policies, and actions that the City can use to reduce its GHG emissions. The CAP also outlines the actions that City will undertake to achieve its proportional share of statewide GHG emission reductions in accordance with CEQA Guidelines Section 15183.5.

The CAP Consistency Checklist includes three steps. Step 1 consists of an evaluation to determine whether: (a) a project is consistent with the existing General Plan, Community Plan, and zoning designations for the site, and if not, whether the project would (b) include a land use plan and/or zoning designation amendment that would result in an increased density within a Transit Priority Area (TPA) and implement CAP Strategy 3 actions, or (c) include a land use plan and/or zoning designation amendment that would result in an equivalent or less GHG-intensive project when compared to the existing designations. The Step 2 evaluation includes an explanation as to how a project would implement the required measures delineated in the checklist under Step 2. Step 3 evaluates the project's consistency with the CAP's transportation strategy.

2.1 Step 1 – Land Use Consistency

The first step in determining whether a project would conflict with the CAP is to assess the project's consistency with the growth projections used in the development of the CAP. To demonstrate consistency with Step 1, projects must answer in the affirmative (i.e., "yes") to one of the following three options:

A. Is the proposed project consistent with the existing General Plan and Community Plan land use and zoning designations?; OR,
B. If the proposed project is not consistent with the existing land use plan and zoning designations, and includes a land use plan and/or zoning designation amendment, would the proposed amendment result in an increased density within a Transit Priority Area (TPA) and implement CAP Strategy 3 actions, as determined in Step 3 to the satisfaction of the Development Services Department?; OR,
C. If the proposed project is not consistent with the existing land use plan and zoning designations, does the project include a land use plan and/or zoning designation amendment that would result in an equivalent or less GHG-intensive project when compared to the existing designations?

Under Option A, projects that do not require a change in land use or zoning designation are generally considered to be consistent with Step 1 because the CAP's emissions were based on build-out assumptions of the existing land use designations at the time of the CAP's development. Under Option B, projects may be found to be in compliance with the CAP if they are located within a designated TPA and implement strategies that would be consistent with the assumptions in the CAP (i.e., though not consistent with the underlying land use, these projects would be developed in TPAs and generally would be considered to implement strategies that reduce GHG emissions). Under Option C, projects may be found to be in compliance with the CAP if they would result in similar or reduced GHG emissions compared to the assumptions in the CAP (i.e., though not consistent with the underlying land use, these projects would none the less not impair the City's achievement of GHG reduction requirements because they would reduce GHG emissions).

Relative to the proposed project, the existing land use designation for the project site is commercial/recreation and public recreation, as designated by the 1984 Mission Valley Community Plan, approved in 1985 and amended in 2013 (City of San Diego 2013). The proposed project involves a land use change to Master Plan, which would permit a mix of uses including campus, residential, hotel, and commercial/retail land uses as described in Section 1, above. Therefore, the proposed project is not consistent with Option A.

The City is currently in the process of updating the Mission Valley Community Plan. On February 6, 2019, a second working draft of the Mission Valley Community Plan (City of San Diego 2019a) and its corresponding Draft

Environmental Impact Report (City of San Diego 2019b) were released. In the Draft EIR, the City states that the proposed Mission Valley Community Plan Update (CPU) serves as a comprehensive long-term plan for the physical development of the Mission Valley CPA and is intended to manage and address future growth through 2050 (City of San Diego 2019b). The draft Mission Valley CPU is intended to provide orderly growth and redevelopment by placing higher density residential development and mixed-use within and around transit corridors (City of San Diego 2019a). As accounted for in Table 3.4-1 of that Draft EIR, the City provides the following net increases under the draft Mission Valley CPU by 2050 (City of San Diego 2019b):

- Housing units: 27,910
- Population: 51,600
- Nonresidential square feet: 7,317,000
- Employment: 19,100

The draft Mission Valley CPU anticipates that the project site will be subject to future redevelopment under a Specific Plan or Campus Master Plan, consistent with the description of the proposed project provided above. Additionally, the proposed Mission Valley CPU anticipates the following uses on the project site:

- 4,800 dwelling units
- 2,000,000 square feet of office space
- 300,000 square feet of retail space
- 38.1 acres of active park
- 4.9 acres of open space

Table 1 provides a summary of the proposed project and the underlying assumptions in the draft CPU. Overall, the proposed project includes slightly less intensity and development compared to the uses contained in the draft Mission Valley CPU, and therefore, overall lower projected growth. As such, if the draft Mission Valley CPU is approved by the City, it would provide a land use framework that is generally consistent with and permits the land use densities and intensities contemplated by the proposed project.

Table 1. Mission Valley CPU versus Proposed Project

Project Component	Unit Count or Square Feet		Difference	% Increase/ (Decrease)
	Mission Valley CPU	Proposed Project		
Residential	4,800 units	4,600 units	(200) units	(4.17%)
Office	2,000,000 square feet	1,565,000 square feet	(435,000) square feet	(21.8%)
Retail/Hotel	300,000 square feet	310,415[a] square feet	10,415 square feet	3.5%
Parks and Recreation	43 acres	84.5 acres	41 acres	93%
Stadium	40,000	35,000 capacity	(5,000 seats)	(12.5%)
Population	8,880	8,510	(170)	(1.9%)

Note:
[a] Includes hotel uses.

As the Mission Valley CPU is currently in draft form, this report cannot rely on the draft update until adopted by the City because revisions to the draft Mission Valley CPU can occur. Therefore, the project analysis cannot answer in the affirmative to the call of Option A above.

However, the proposed project is located within a TPA, as it is served by the Stadium Trolley Station on the Trolley Green Line; see Attachment B. Therefore, to comply with Step 1 and answer in the affirmative – the call of Option B above, the proposed project is required to comply with Step 2 and Step 3. As described below in Sections 2.2 and 2.3 of this memorandum, the proposed project would implement the measures in Step 2 and Strategy 3 Actions. Because the proposed project would result in increased density within a TPA and would implement CAP Checklist Step 2 and Step 3, Strategy 3 actions, as summarized below and shown in Attachment C, the proposed project is consistent with Option B.

2.2 Step 2 – Climate Action Plan Strategies Consistency

The second step of the CAP consistency review is to review and evaluate a project's consistency with the applicable strategies and actions of the CAP.[2] Step 2 only applies to development projects that involve permits that would require a certificate of occupancy from the Building Official, or projects comprised of one- and two-family dwellings or townhouses, and their accessory structures, as defined in the California Residential Code. All other development projects that would not require a certificate of occupancy from the Building Official are required to implement Best Management Practices for construction activities as set forth in the Greenbook for public projects (PWSI 2018).

The proposed project's consistency with the CAP Strategies under Step 2 is summarized below:

Strategy 1: Energy & Water Efficient Buildings

1. Cool/Green Roofs

   - Would the project include roofing materials with a minimum 3-year aged solar reflection and thermal emittance or solar reflection index equal to or greater than the values specified in the voluntary measures under the California Green Building Standards Code?; OR
   - Would the project roof construction have a thermal mass over the roof membrane, including areas of vegetated (green) roofs, weighting at least 25 pounds per square foot as specified in the voluntary measures under California Green Building Standards Code; OR
   - Would the project include a combination of the above two options?

   Consistent. The proposed project would comply with one, both, or a combination of the roofing options provided in this strategy as required by the SDSU Mission Valley Campus Master Plan Design Guidelines.

[2] A complete CAP Consistency Checklist illustrating compliance with Step 2 is included in this memorandum as Attachment C.

2. Plumbing Fixtures and Fittings

   With respect to plumbing fixtures or fixings provided as part of the project, would those low-flow fixtures/appliances be consistent with each of the following:

   Residential buildings:

   - Kitchen faucets: maximum flow rate not to exceed 1.5 gallons per minute at 60 psi;
   - Standard dishwashers: 4.25 gallons per cycle;
   - Compact dishwashers: 3.5 gallons per cycle; and
   - Clothes washers: water factor of 6 gallons per cubic feet of drum capacity?

   Nonresidential buildings:

   - Plumbing fixtures and fittings that do not exceed the maximum flow rate specified in Table A5.303.2.3.1 (voluntary measures) of the California Green Building Standards Code; and
   - Appliances and fixtures for commercial appliances that meet the provisions of Section A5.303.3 (voluntary measures) of the California Green Building Standards Code?

   Consistent. The proposed project's residential and nonresidential development would comply with the maximum flow rates for plumbing fixtures and appliances provided in this strategy as required by the SDSU Mission Valley Campus Master Plan Design Guidelines.

Strategy 3: Bicycling, Walking, Transit & Land Use

3. Electric Vehicle Charging

   - <u>Multiple-family projects of 17 dwelling units or less</u>: Would 3% of the total parking spaces required, or a minimum of one space, whichever is greater, be provided with a listed cabinet, box, or enclosure connected to a conduit linking the parking spaces with the electrical service, in a manner approved by the building and safety official, to allow for the future installation of electric vehicle supply equipment to provide electric vehicle charging stations at such time as it is needed for use by residents?
   - <u>Multiple-family projects of more than 17 dwelling units</u>: Of the total required listed cabinets, boxes, or enclosures, would 50% have the necessary electric vehicle supply equipment installed to provide active electric vehicle charging stations ready for use by residents?
   - <u>Nonresidential projects</u>: Of the total required listed cabinets, boxes, or enclosures, would 50% have the necessary electric vehicle supply equipment installed to provide active electric vehicle charging stations ready for use?

   The proposed project includes more than 17 multifamily dwelling units; thus, the first strategy is not applicable.

   Consistent. The proposed project would be equipped with 3% of the total residential parking spaces and 6% of total nonresidential parking spaces with appropriate electric supply equipment to allow for the future installation of electric vehicle (EV) chargers (i.e., "EV ready"). Of these "EV ready" spaces, 50% would be *equipped with EV charging stations. These EV parameters are required by the SDSU Mission Valley Campus Master Plan Design Guidelines.*

Of relevance to this discussion, the proposed project would provide approximately 5,662 parking spaces in aboveground residential parking structures, 5,065 parking spaces in below-ground office/campus parking structures, and 485 hotel parking spaces. Of these totals, approximately 500 parking spaces would be designated as "EV ready," and 252 of the "EV ready" spaces would be equipped with operable EV charging stations: 85 EV-ready spaces with charging stations in the residential development areas and 167 EV-ready spaces with charging stations in the nonresidential development areas, as show in Table 2 below.

Table 2. Proposed Project Parking Supply

	Parking Spaces	% of Spaces	"EV Ready"	EV Chargers
Residential				
	5,662	3%	170	85
Nonresidential				
Campus/Office	5,065	6%	304	152
Hotel	485	6%	29	15
		Subtotal	*333*	*167*
		TOTAL	**503**	***252***

Note: EV = electric vehicle

4. Bicycle Parking Spaces

Would the project provide more short- and long-term bicycle parking spaces than required in the City's Municipal Code (Chapter 14, Article 2, Division 5)?

Consistent. Residential units would include secure bicycle parking per City of San Diego standards (up to 0.6 spaces per dwelling unit anticipated based on units containing up to three bedrooms) as required by the SDSU Mission Valley Campus Master Plan Design Guidelines. Similarly, short-term (racks) and long-term spaces (rooms, enclosures, or lockers) would also be provided for nonresidential uses per City of San Diego standards (0.1 short-term spaces per 1,000 square feet and 5% of nonresidential automobile parking provided in long-term spaces) as required by the SDSU Mission Valley Campus Master Plan Design Guidelines.

The proposed project would also include a network of bicycle lanes on key north–south streets (e.g., Murphy Canyon Trail), a network of multi-use trails through the River Park, dedicated lanes in the campus plaza area, a campus loop multi-use path that encircles the project site, and connections to existing off-site facilities. Multi-use trails and paths comprise a total of nearly 2 miles within the site. A total of nearly 1 lane-mile of on-street bike lanes within the site is proposed.

5. Shower Facilities

If the project includes nonresidential development that would accommodate over 10 tenant occupants (employees), would the project include charging/shower facilities in accordance with the voluntary measures under the California Green Building Standards Code in accordance with the table below?

Number of Tenant Occupants (Employees)	Shower/Changing Facilities Required	Two-Tier (12" X 15" X 72") Personal Effects Lockers Required
0–10	0	0
11–50	1 shower stall	2
51–100	2 shower stall	3
101–200	3 shower stall	4
Over 200	1 shower stall plus 1 additional shower stall for each 200 additional tenant-occupants	1 two-tier locker plus 1 two-tier locker for each 50 additional

Consistent. The proposed project's nonresidential development areas would provide changing/shower facilities as required by the referenced California Green Building Standards Code provision as required by the SDSU Mission Valley Campus Master Plan Design Guidelines.

6. Designated Parking Spaces

If the project includes a nonresidential use in a TPA, would the project provide designated parking for a combination of low-emitting, fuel-efficient, and carpool-vanpool vehicles in accordance with the table below?

Number of Required Parking Spaces	Number of Designated Parking Spaces
0–9	0
10–25	2
26–50	4
51–75	6
76–100	9
101–150	11
151–200	18
201 and over	At least 10% of total

Consistent. The proposed project's nonresidential development areas would provide designated parking for a combination of specified vehicles, as a condition of building permit issuance as required by the SDSU Mission Valley Campus Master Plan Design Guidelines.

7. Transportation Demand Management Program

If the project would accommodate over 50 tenant-occupants (employees), would it include a transportation demand management program that would be applicable to existing tenants and future tenants that includes:

At least one of the following components:

- Parking cash out program
- Parking management plan that includes charging employees market-rate for single-occupancy vehicle parking and providing reserved, discounted, or free spaces for registered carpools or vanpools
- Unbundled parking whereby parking spaces would be leased or sold separately from the rental or purchase fees for the development for the life of the development

And at least three of the following components:

- Commitment to maintaining an employer network in the SANDAG iCommute program and promoting its RideMatcher service to tenants/employees
- Onsite carsharing vehicle(s) or bikesharing
- Flexible or alternative work hours
- Telework program
- Transit, carpool, and vanpool subsidies
- Pre-tax deduction for transit or vanpool fares and bicycle commute costs
- Access to services that reduce the need to drive, such as cafes, commercial stores, banks, post offices, restaurants, gyms, or childcare, either onsite or within 1,320 feet (1/4 mile) of the structure/use?

Consistent. See below under Section 3, subsection 5 for a complete description of the proposed project's Transportation Demand Management (TDM) Program. The TDM Program, summarized below, incentivizes alternative transportation besides single-occupant commuter trips. The TDM Program, which applies to the proposed project's campus/office, residential and retail uses, consists of the following strategies:

- *Land Use Diversity*
- *Neighborhood Site Enhancement*
  - *New Bicycle Facilities*
  - *Dedicated Land for Bicycle/Multi-Use Trails*
  - *Bicycle Parking*
  - *Showers and Lockers in Employment Areas*
  - *Increased Intersection Density*
  - *Traffic Calming*
  - *Car Share Service Accommodations*
  - *Enhanced Pedestrian Network*

- *Parking Policy and Pricing*
  - *Unbundled Residential Parking*
  - *Parking Cash-Out Program for Office Use*
  - *Metered On-Street Parking*
  - *Reduced Parking Supply*
- *Commute Trip Reduction Services*
  - *TDM Program Coordinator and Marketing*
  - *Electric Bike-Share Accommodations*
  - *Ridesharing Support*
  - *School Pool*
  - *Hotel Shuttle Service*

To determine the effectiveness of the TDM and the amount of vehicle miles traveled and trip reduction that would be attributable to the SDSU Mission Valley Campus TDM Program, the proposed program elements were compared to California Air Pollution Control Office Association (CAPCOA) standards. CAPCOA developed the Quantifying Greenhouse Gas Mitigation Measures (August 2010), hereinafter, referred to as the CAPCOA Report, as a set of guidelines for quantifying the environmental benefits of mitigation measures. The CAPCOA Report includes the most comprehensive and up-to-date set of calculations for calculating TDM effectiveness. For those TDM strategies not addressed by the CAPCOA standards, case studies were utilized to estimate vehicle trip and vehicle miles traveled reduction.

The detailed calculations for each TDM strategy are described in Appendix G of the Traffic Impact Analysis. For each strategy that is based on the CAPCOA Report, the related CAPCOA strategy code (for example, CAPCOA TRT-6 or SDT-3) is provided. It is important to note that the resulting vehicle miles traveled and trip reductions are not simply additive. Combinations of strategies in the major categories are multiplicative in that there is a dampening effect based on a variety of studies.

The summary of the non-Stadium TDM vehicle trip reductions are included in Table 3.

Table 3. Proposed Non-Stadium TDM Trip Reductions

CAPCOA Category	TDM Measure	Initial Reduction	Final Reduction[1]
Neighborhood Site Enhancements	Improve Site Design including: • New Bicycle Facilities • Dedicated Land for Bicycle/Multi-Use Trails • Bicycle Parking • Increased Intersection Density	11.08%	5.00%
	Traffic Calming	0.25%	
	Car Share	0.37%	
	Pedestrian Network	2.00%	

Table 3. Proposed Non-Stadium TDM Trip Reductions

CAPCOA Category	TDM Measure	Initial Reduction	Final Reduction[1]
Parking Policy/ Pricing	Unbundle Parking	0.95%	4.07%
	Metered On-Street Parking	3.15%	
Commute Trip Reduction	TDM Marketing with Transportation Coordinator including:		6.09%
	Shower and Locker Facilities	2.21%	
	Carpool Matching/Guaranteed Ride Home	2.80%	
	Bicycle Share	0.50%	
	School Pool	0.70%	
	Hotel Shuttle Service	0.04%	
		Combined Total Reduction	**14.41%**

Note: [1] Combinations of strategies in the major categories are multiplicative in that there is a dampening effect based on a variety of studies.
Sources: Quantifying Greenhouse Gas Emissions (CAPCOA 2010) and Fehr & Peers 2019.

Additionally, TDM Program strategies have been developed exclusively for the proposed project's Stadium land use. Those strategies include the following:

- *Stadium TDM 1 – Encourage Alternative Modes of Transportation*
- *Stadium TDM 2 – Encourage Carpools and Zero-Emission Vehicles*
- *Stadium TDM 3 – Encourage Active Transportation*
- *Stadium TDM 4 – Encourage Off-Site Parking at Main Campus*
- *Stadium TDM 5 – Provide Mobility and Parking Information Services*
- *Stadium TDM 6 – Online Parking Reservation System*

Unlike the TDM strategies for non-Stadium uses, very little information is available regarding the effectiveness of individual or combined Stadium TDM strategies. Many event venues implement TDM strategies to reduce vehicle trips and parking demand, which also serves to reduce congestion, improve the visitor experience and enhance project sustainability. However, operators of these facilities, jurisdictions, or other third parties do not conduct surveys or collect data to reasonably quantify the actual reduction in trips. In addition, the effectiveness of TMD strategies (individually or in combination) can vary depending on the site context, including the presence of parking in the surrounding area, transit quality and service frequency, congestion on adjacent freeways/surface streets, etc.

With implementation of formalized Stadium TDM Program strategies, the anticipated reduction in vehicle trips is estimated to be an additional 5% to 10% beyond what is already assumed for the Stadium. This estimate is based on engineering judgment and the site context, which does not include substantial public parking areas in close proximity to the site, but does include the presence of a high-quality transit stop (i.e., the Trolley) within a 5-minute walk of the stadium and a limited parking supply for sold-out events.

2.3 Step 3 – Climate Action Plan Conformance Evaluation

The purpose of Step 3 is to determine whether a project is located in a TPA, and includes a land use plan and/or zoning designation amendment that is consistent with the assumptions in the CAP because it would implement CAP Strategy 3 actions. In general, a project that would result in a reduction in density inside a TPA would not be consistent with Strategy 3. The following Step 3 questions for the proposed project are answered below:

1. **Would the proposed project implement the General Plan's City of Villages strategy in an identified TPA that will result in an increase in the capacity for transit-supportive residential and/or employment densities?**

   Yes. The proposed project would implement the General Plan's City of Villages strategy, which provides capacity for transit-supportive residential density within TPAs. As shown in Appendix B, the project site is within a TPA. The proposed project incorporates the MTS Trolley Green Line and existing Stadium Trolley Station and reserves adequate right-of-way for the planned future MTS Trolley Purple Line. The Stadium Trolley Station is within 0.5 miles of all future residents and jobs within the project site.

   The proposed project would accommodate mixed-used development, including academic and administrative buildings and classrooms; commercial, technology, research and development and office space; complementary retail space to serve neighborhood residents, businesses, Stadium games, and events; hotels; faculty and staff housing; undergraduate and graduate student housing; apartment units available for the public; and other market-rate, workforce, and affordable housing. The proposed project would provide recreational opportunities, employment centers, and a concentration of food and shopping opportunities. Specifically, the proposed project would accommodate a mixed-use village development by providing 4,600 residential units arranged in a mixed-use configuration with up to 95,000 square feet of ground floor commercial/retail uses; up to 1,565,000 square feet of employment-producing office, academic, innovation, and research and development space; up to 400 hotel rooms; and 84.5 acres of parks, recreation, and open space, as well as a 35,000-capacity multi-purpose Stadium within 0.5 miles of existing light rail trolley service. As a result, the estimated proposed project employment growth would be 5,866 estimated annual jobs. An approximate population of 8,510 represents the estimate of new residents as a result of the proposed project's residential component. As described above in Table 1, the proposed project would include 4,600 dwelling units and would provide for 5,866 jobs, each of which is more than the existing commercial recreation and public recreation land uses anticipated in the CAP's underlying land use assumptions. This would increase the capacity for transit-supportive residential and employment intensities within the TPA.

2. **Would the proposed project implement the General Plan's Mobility Element in TPAs to increase the use of transit?**

   Yes. The project site would be accessible via trolley via the MTS Trolley Green Line and Stadium Trolley Station on the south end of the project site. The Stadium Trolley Station is within 0.5 miles of all future residents and jobs within the project site. The proposed project would include trolley and public transit improvements, including an enhanced pedestrian connection to the existing Stadium Trolley Station, and accommodating the planned Trolley Purple Line and transit station. In addition, the proposed project anticipates future transit service and provides for bus services to the Stadium Trolley Station.

3. **Would the proposed project implement pedestrian improvements in TPAs to increase walking opportunities?**

Yes. The dense and extensive network of on-site pedestrian facilities would provide new connections parallel to the high-stress Friars Road environment that will enhance pedestrian accessibility adjacent to and within the site for area residents, employees, and visitors. The proposed project would include walking paths and biking paths connected to active and passive recreation opportunities and open space for use by the public, including enhanced pedestrian connections to the existing light rail transit center at the Stadium Trolley Station. Within the site itself, nearly all roadways will include a sidewalk or path on both sides of the street. For the few segments with a walking facility on only one side that will serve a pedestrian destination, appropriate street crossings treatments will be provided within a reasonable walking distance. These treatments include traffic signals, raised crosswalks, or stop signs to delineate right-of-way. Therefore, the proposed project would not result in a significant impact to pedestrian facilities.

Additionally, the proposed site connection to Fenton Parkway provides an additional walkable connection to the shops and restaurants at Fenton Marketplace, as well as the low-volume east–west connection provided by Rio San Diego Drive. The proposed connections will provide an improved pedestrian link between the existing neighborhoods along Rancho Mission Road and Fenton Marketplace area. This new connection will be a substantial improvement over the current walking path through the Friars Road/I-15 interchange.

4. **Would the proposed project implement the City of San Diego's Bicycle Master Plan to increase bicycling opportunities?**

Yes. The proposed project would not conflict with any existing or planned bicycle facilities, and it would substantially enhance bicycle travel adjacent to and through the site. The proposed project would include biking paths to facilitate the use of alternative mobility options. A new on-site path system along the northern and eastern edges of the site (connecting to San Diego and Rancho Mission Roads) will provide a safer and lower-stress option for cyclists traveling from west of Stadium Way to east of I-15. The proposed project also would include improvements along the San Diego River Park, which would include 8- to 10-foot-wide linear walking and biking trails. The proposed hike and bike trail would be located throughout the San Diego River Park. The trail would connect to the hike and bike loop, which provides access to the rest of the campus. The trail would complete the bikeway connection from Murphy Canyon to Fenton Parkway and connect to the east side of the campus and throughout the campus. Buffered bike lanes would be constructed between Northside Drive and Friars Road to increase the safety of bicyclists by adding a barrier between the car and bike lanes of travel.

The existing protected bike lanes on the Mission Village Drive overpass over Friars Road would be maintained with the proposed widening of the overpass, and they would connect to bike lanes on Aztec Drive through the center of the site. A connection to existing bike lanes on Friars Road will also be provided by the signalized intersection at Stadium Way. Additionally, the proposed site connection to Fenton Parkway provides a convenient bike-able connection to the shops and restaurants at Fenton Marketplace, improving the link between the Rio San Diego neighborhood and the Rancho Mission Road neighborhood east of I-15.

5. **Would the proposed project incorporate implementation mechanisms that support Transit Oriented Development?**

   Yes. The proposed project would establish a transit-oriented mixed-use campus consisting of a variety of land uses, includes 4,600 residential units; 95,000 square feet of neighborhood-serving commercial/retail; 1.565 million square feet of office, research and development, and innovation space; and 84.5 acres of parks, recreation, and open space, all within a TPA area that is served by the MTS Trolley Green Line and Stadium Trolley Station. As described above, the proposed project would include transit, bicycle, and pedestrian improvements to encourage alternative modes of transportation

   The total trip reduction attributable to transit, bicycle, and pedestrian trips is expected to be 4,599 daily trips. The higher of the inbound or outbound volumes that comprise this reduction are 361 and 407 during the AM and PM peak hours, respectively, which include the transit alightings and boardings at the project site. The trip reduction does not segregate between modes of transportation, but using engineering judgment and considering adjacent developments and facilities, the highest share is expected to be transit trips. Using a transit mode share of 85% (with the remaining 15% constituting bicycle and pedestrian trips), the project would add roughly 4,000 daily transit trips (4,599 x .85 = 3,909) to and from the project site, with the vast majority of those trips expected to be trolley trips, rather than bus trips, due to the nearby convenient location of the Stadium Trolley Station within the project site. Conservatively assuming that all peak-hour transit trips are trolley trips, this would equate to roughly 309 and 346 peak directional trolley trips in the AM and PM peak hours, respectively. Engineering judgment was used to estimate that a conservative 65% of these peak-hour trips would occur in the peak direction (westbound in the morning and eastbound in the evening) consistent with the existing directional split. This would result in roughly 202 and 226 trips in the peak direction during each commute hour. With the current 15-minute headways (or four trains per hour) and assuming an equal number of riders per train, the proposed project is expected to add up to 50 and 56 patrons in the AM and PM peak directional hours, respectively. The estimate of transit riders is presented in Appendix H of the Traffic Impact Analysis.

   As previously discussed, the proposed project also would include a TDM Program that incentivizes alternative transportation besides single-occupant commuter trips. The TDM Program, which applies to the proposed project's campus office and residential and retail uses, consists of the following strategies:

   - *Land Use Diversity*
   - *Neighborhood Site Enhancement*
     - *New Bicycle Facilities—A network of bicycle lanes on key north–south streets and connections to existing off-site facilities (e.g., Murphy Canyon Trail) is part of the proposed campus site plan. A total of nearly 1 lane-mile of on-street bike lanes within the site is proposed.*
     - *Dedicated Land for Bicycle/Multi-Use Trails—The site plan also includes a network of multi-use trails through the River Park, dedicated lanes in the office plaza area, plus a campus loop multi-use path that encircles the site. Multi-use trails and paths comprise a total of nearly 2 miles within the site.*
     - *Bicycle Parking—Residential units will include secure bicycle parking per City of San Diego standards (up to 0.6 spaces per dwelling unit anticipated based on units containing up to three*

bedrooms); similarly, short-term (racks) and long-term spaces (rooms, enclosures, or lockers) will also be provided for nonresidential uses per City of San Diego standards (0.1 short-term spaces per 1,000 square feet and 5% of nonresidential automobile parking provided in long-term spaces).

  - *Showers and Lockers—Changing facilities will be provided in at least one of the following locations to support bicycling and walking as commute modes for employees: the campus office, research and development, or retail building areas.*
  - *Increased Intersection Density—On-site roadway network includes a relatively high intersection density of more than 69 spaces per square mile, which results in short block lengths and travel distances between complementary land uses. This intersection density strongly encourages walking, bicycling, or other micromobility modes to travel within the site and to adjacent neighborhoods.*
  - *Traffic Calming—Nearly all on-site intersections will include curb extensions and bulbouts; several on-site roadways will include raised crosswalks; and two roundabouts will help to manage travel speeds and enhance pedestrian safety.*
  - *Car Share Service Accommodations—Dedicated parking spaces for car sharing companies will be established in on-street spaces and/or within the campus and/or office parking structures.*
  - *Enhanced Pedestrian Network—All streets within the project site will include sidewalks on both sides of the street, or will include a multi-use path on one side of the street with enhanced pedestrian crossings. Separate pedestrian phases at signalized intersections to enhance safety and raise driver awareness will also be included. As noted above, the campus loop and other paths will provide in excess of 2 miles of pedestrian paths in addition to sidewalks.*
- *Parking Policy and Pricing*
  - *Unbundled Parking—Parking in all residential buildings will be "unbundled" from units such that residents will have to request a parking space separate from their apartment/condominium unit and pay for that parking space separately. This approach is consistent with the recently adopted City of San Diego ordinance that requires all multi-family residential parking in TPAs to be unbundled from units.*
  - *Parking Cash-Out Program for Office Use—The proposed project's office use employers will provide employees with monetary incentives for not driving to work.*
  - *Metered On-Street Parking—All on-street spaces within the campus core will be metered and require payment of an hourly charge during typical daytime hours (e.g., between 8:00 a.m. and 6:00 p.m.). The parking spaces on the southwest and southeast edges of the site nearest the park/recreation facilities may also be metered, but at a minimum will include time limits to ensure parking turnover and prevent extended storage of resident vehicles.*
  - *Limit Parking Supply—The proposed project will provide a limited parking supply of 1.23 spaces per dwelling unit. The parking rate is limited in comparison to the parking provided at similar developments in the Mission Valley region.*
- *Commute Trip Reduction Services*
  - *TDM Program Coordinator and Marketing—To ensure the TDM Program strategies are implemented and effective, a Campus Transportation Coordinator will be identified to monitor the TDM Program. As part of overall campus management, a staff member or outside*

consultant will be designated to serve as the on-site Campus Transportation Coordinator for employees and residents. Coordinators are responsible for developing, marketing, implementing, and evaluating TDM Programs, where dedicated personnel in this role make TDM Programs more robust, consistent, and effective. Additionally, residents and employees would have a designated point of contact for questions about the various TDM strategies, which would allow them to easily stay informed of various TDM functions and eligibility.

- *The Campus Transportation Coordinator's duties would include, but not be limited to, the following:*
  - *Conduct transportation/mobility options orientation for new employees and new residents.*
  - *Assist with rideshare matching for employees commuting to the project and residents commuting from their homes.*
  - *Provide information on transit, bicycling, and walking to and from the project.*
  - *Act as source of information regarding the TDM Program, including compliance with regulatory requirements and new potential TDM benefits.*
  - *Coordinate TDM Program monitoring (administer surveys and coordinate data collection).*
  - *Promote available websites providing transportation options for residents, employees, customers, and guests.*
  - *Create and distribute a "new resident" and "new employee" information packet addressing non-automobile modes of transportation.*
  - *Promote a transportation options app for use on mobile devices (tech-enabled mobility app).*
- *Electric Bike-Share Accommodations—Private vendors currently supply electric bicycles (e-bikes) for short-term rental in the San Diego area. To facilitate the use of e-bikes within the site, the SDSU Mission Valley Campus site plan will provide areas for the temporary storage of e-bikes available for rental and identify specific locations for bike drop off.*
- *Ridesharing Support—As noted under the Campus Transportation Coordinator element above, rideshare support will be provided as part of this program. This includes making connections with the SANDAG iCommute program for carpool, vanpool, and rideshare programs that are specific to the project's residents and employees.*
- *School Pool—As lower-level school facilities are not provided on the site, students will either need to be bused or driven by parents to off-site schools. Administered by the Campus Transportation Coordinator, a school pool program would pair students traveling to the same school or area to limit the amount of small group school trips made from the project site.*
- *Hotel Shuttle Service—Shuttle service will be provided to and from the hotel on site. This shuttle service will be available to hotel guests and will service the airport and various other tourist locations.*

The TDM Program strategies that have been developed exclusively for the proposed project's Stadium land use include the following:

- Stadium *TDM 1 – Encourage Alternative Modes of Transportation*
  - *Discounted or free use of MTS services for attendees on the event date with proof of purchase of an event ticket.*

   - *Tchotchkes/giveaways for transit users (goods for attendees, free MTS tickets as raffle prizes for employees, etc.).*
   - *Rewards/gamification opportunities for attendees and/or employees to compete for prizes or points based on their transportation choices.*
   - *Vanpool subsidy and administration: Provide pre-tax commuter benefits for employees and provide administration assistance with the coordination of third-party vanpool programs.*
   - *Marketing and outreach campaign for transit.*
- *Stadium TDM 2 – Encourage Carpools and Zero-Emission Vehicles*
   - *Provide preferential parking for carpools and zero-emission vehicles (ZEVs).*
   - *Provide variable parking price based on car occupancy (e.g., charge lower rates for vehicles with four or more occupants).*
   - *Provide vehicle charging spaces in stadium parking in excess of the typical requirement.*
   - *Charge reduced parking rates for ZEVs.*
- *Stadium TDM 3 – Encourage Active Transportation*
   - *Provide free access to secure bicycle parking spaces (these could be the same supply provided to campus office/retail/restaurant employees, ideally located in buildings immediately adjacent to the Stadium).*
   - *Provide a bike valet to assist with bicycle drop-off and retrieval before and after events.*
   - *Provide showers and lockers for employees on the site (primarily for employees but available to attendees).*
   - *Provide a bicycle fix-it station near the Stadium bicycle parking.*
   - *Coordinate bicycle and walk pools for employees.*
   - *Capitalize upon the robust multi-use trails and connections proposed on the site with clear wayfinding to the Stadium entrance and bicycle parking.*
- *Stadium TDM 4 – Encourage Off-Site Parking at Main Campus*

  The greatest parking demand at the site will occur during high-attendance events (e.g., greater than 25,000), many of which are expected to occur on a weekend day. Conditions will be exacerbated for sold-out events on a weekday, when some level of parking demand from non-Stadium uses will occupy spaces in the parking garage and reduce the available event supply. For larger weekday events and for high-attendance weekend events, parking at the main SDSU main campus should be encouraged through a marketing program, reduced rates for event attendees and employees (compared to Stadium garage parking rates), and possibly free MTS fare with proof of event ticket/parking payment or employee badge. This would allow all Stadium patrons to access the Stadium site via the Trolley, resulting in reduced parking and traffic demand near the site.
- *Stadium TDM 5 – Provide Mobility and Parking Information Services*
   - *Multimodal signage and wayfinding to the Trolley station, bicycle parking, and passenger drop-off and pick up areas.*
   - *Real-time travel/parking availability information, variable message signs at key site entrances (e.g., Stadium Way and Aztec Drive), and social media posts.*

- *Welcome packets and ongoing marketing for new employees.*
- *External marketing campaign including advertisements on television, website, social media, radio, email blasts to season ticket holders, etc.*
- *Information kiosks or bulletin boards/TV monitors at multiple locations providing information about the TDM Program and transit options for Stadium employees.*

- *Stadium TDM 6 – Online Parking Reservation System*

  Provision of an online parking reservation system will allow event attendees to choose and reserve parking spaces prior to the event. This system would allow attendees to make a decision on their preferred parking location—on site or on the SDSU main campus as appropriate—and could provide varying parking costs for on-site and off-site parking locations. Attendees who choose to park at the SDSU main campus parking would be able to utilize transit to travel to and from the Stadium site. This would help to reduce trips at the site and encourage the use of transit.

6. **Would the proposed project implement the Urban Forest Management Plan to increase urban tree canopy coverage?**

   Yes. The proposed project would plant trees throughout the paseos to provide shade and to contribute to the City's 20% urban canopy tree coverage goal. Major streets and pathways within the project site would include trees and other natural amenities to provide shade and create a more inviting pedestrian environment. The landscape plans include multiple tree types throughout the project site. The proposed project would plant a net of 616 new trees.

3 References

City of San Diego. 2013. *Mission Valley Community Plan.* Adopted June 1985; amended May 2013. Accessed May 24, 2019. https://www.sandiego.gov/sites/default/files/mission_valley_cp_060613_0.pdf.

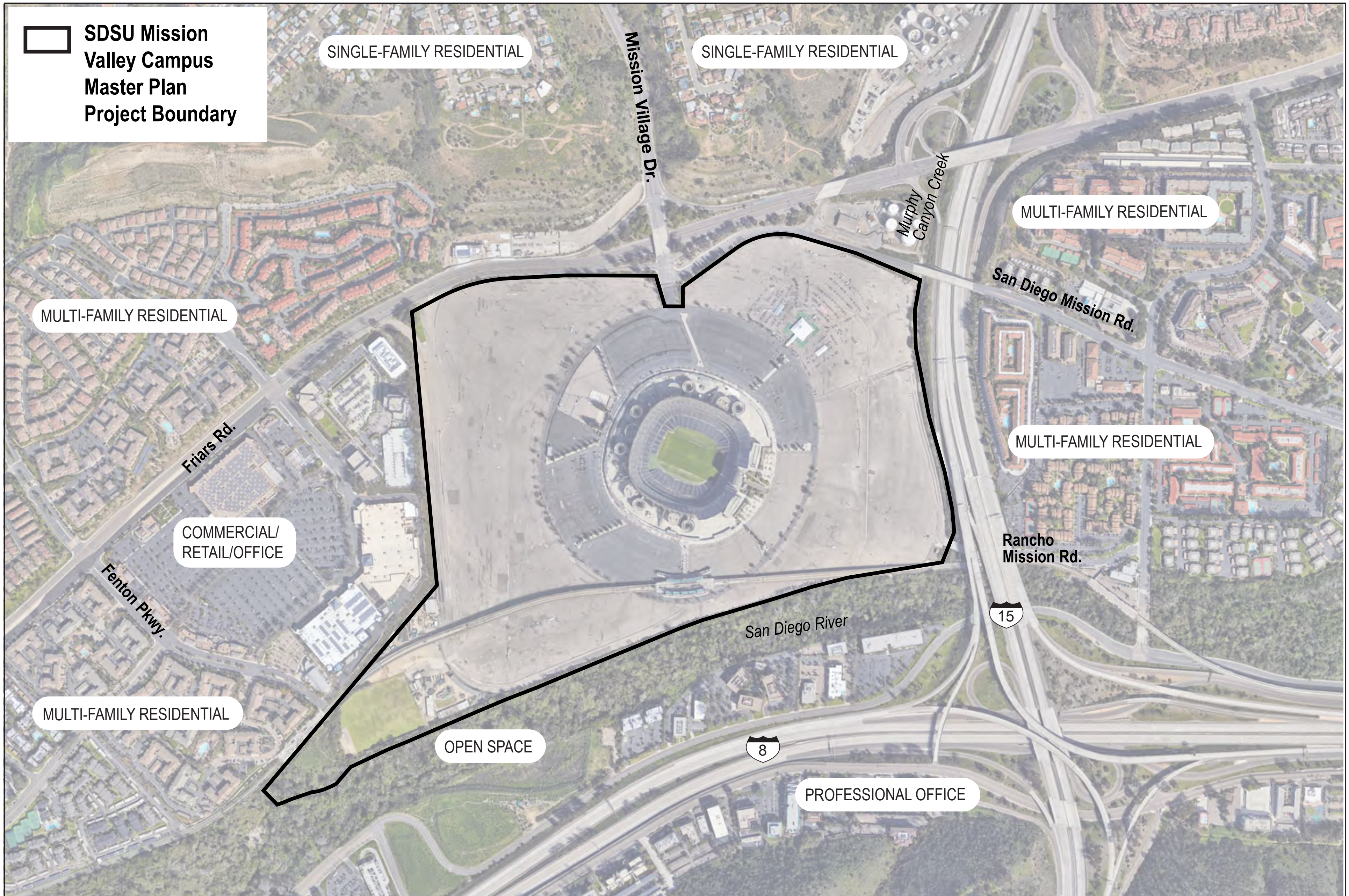
City of San Diego. 2019a. *Mission Valley Community Plan: Working Draft for Community Review.* February 6, 2019. https://www.sandiego.gov/sites/default/files/missionvalleycpu_completeplanforweb_2019_0.pdf.

City of San Diego. 2019b. *Mission Valley Community Plan Update Draft Program EIR.* SCH No. 2017071066. February 6, 2019. Accessed March 4, 2019. https://www.sandiego.gov/sites/default/files/compiled_deir-compressed.pdf.

PWSI (Public Works Standards, Inc,). 2018. *Standard Specifications for Public Works Construction: The "Greenbook."* Accessed June 6, 2019. http://www.greenbookspecs.org/.

Attachment A

Figure 1 – Vicinity Map



SDSU Mission Valley Campus Master Plan
CAP Evaluation

San Diego State University

Figure 1
Vicinity Map

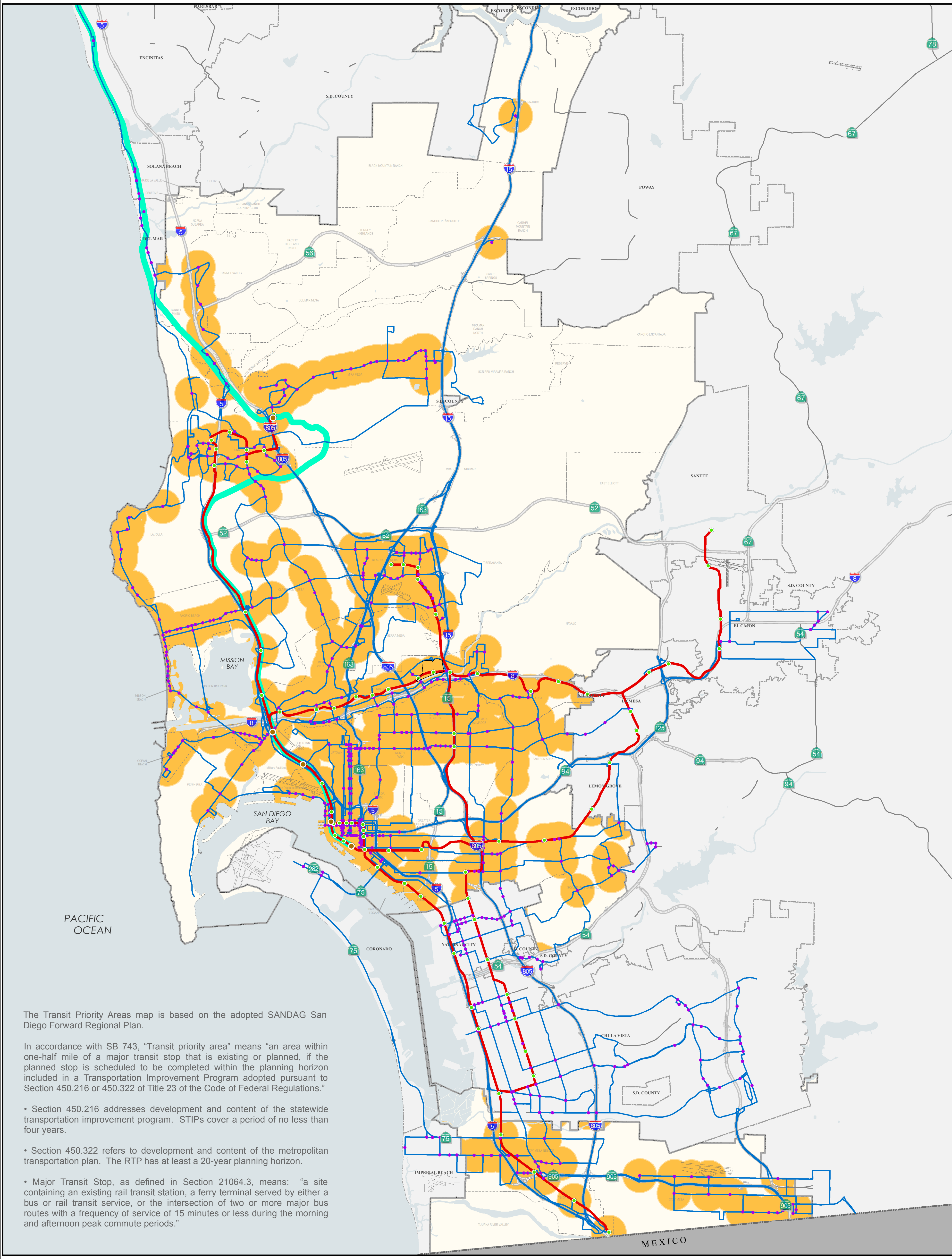
Attachment B

City of San Diego Transit Priority Area per Senate Bill 743

Transit Priority Areas per SB743

CITY OF SAN DIEGO • PLANNING DEPARTMENT

Current as of:
2/5/2019



The Transit Priority Areas map is based on the adopted SANDAG San Diego Forward Regional Plan.

In accordance with SB 743, "Transit priority area" means "an area within one-half mile of a major transit stop that is existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations."

• Section 450.216 addresses development and content of the statewide transportation improvement program. STIPs cover a period of no less than four years.

• Section 450.322 refers to development and content of the metropolitan transportation plan. The RTP has at least a 20-year planning horizon.

• Major Transit Stop, as defined in Section 21064.3, means: "a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service of 15 minutes or less during the morning and afternoon peak commute periods."

Long Term through 2035

Project Boundary

Legend

- Major Transit Stops
- Trolley Stations
- Coaster Station
- High Frequency Routes
- Trolley Lines
- Coaster Line
- Transit Priority Areas
- Planning Areas
- Municipal Boundaries

N W E S

3500 1750 0 3500
Feet

SanGIS

Document Path: L:\GIS\PGIS\Transportation\SB 743\TPA - LongTerm 2019 Revision to 2017 TPA.mxd

Attachment C

City of San Diego Climate Action Plan Consistency Checklist

CLIMATE ACTION PLAN CONSISTENCY CHECKLIST INTRODUCTION

In December 2015, the City adopted a Climate Action Plan (CAP) that outlines the actions that City will undertake to achieve its proportional share of State greenhouse gas (GHG) emission reductions. The purpose of the Climate Action Plan Consistency Checklist (Checklist) is to, in conjunction with the CAP, provide a streamlined review process for proposed new development projects that are subject to discretionary review and trigger environmental review pursuant to the California Environmental Quality Act (CEQA).[1]

Analysis of GHG emissions and potential climate change impacts from new development is required under CEQA. The CAP is a plan for the reduction of GHG emissions in accordance with CEQA Guidelines Section 15183.5. Pursuant to CEQA Guidelines Sections 15064(h)(3), 15130(d), and 15183(b), a project's incremental contribution to a cumulative GHG emissions effect may be determined not to be cumulatively considerable if it complies with the requirements of the CAP.

This Checklist is part of the CAP and contains measures that are required to be implemented on a project-by-project basis to ensure that the specified emissions targets identified in the CAP are achieved. Implementation of these measures would ensure that new development is consistent with the CAP's assumptions for relevant CAP strategies toward achieving the identified GHG reduction targets. Projects that are consistent with the CAP as determined through the use of this Checklist may rely on the CAP for the cumulative impacts analysis of GHG emissions. Projects that are not consistent with the CAP must prepare a comprehensive project-specific analysis of GHG emissions, including quantification of existing and projected GHG emissions and incorporation of the measures in this Checklist to the extent feasible. Cumulative GHG impacts would be significant for any project that is not consistent with the CAP.

The Checklist may be updated to incorporate new GHG reduction techniques or to comply with later amendments to the CAP or local, State, or federal law.

[1] Certain projects seeking ministerial approval may be required to complete the Checklist. For example, projects in a Community Plan Implementation Overlay Zone may be required to use the Checklist to qualify for ministerial level review. See Supplemental Development Regulations in the project's community plan to determine applicability.

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CAP CONSISTENCY CHECKLIST SUBMITTAL APPLICATION

- The Checklist is required only for projects subject to CEQA review.[2]
- If required, the Checklist must be included in the project submittal package. Application submittal procedures can be found in Chapter 11: Land Development Procedures of the City's Municipal Code.
- The requirements in the Checklist will be included in the project's conditions of approval.
- The applicant must provide an explanation of how the proposed project will implement the requirements described herein to the satisfaction of the Planning Department.

Application Information

Contact Information

Project No./Name: San Diego State University Mission Valley Campus Master Plan Project

Property Address: 9449 Friars Road, San Diego, California 92108

Applicant Name/Co.: San Diego State University

Contact Phone: 619-594-5224 Contact Email: lshinn@sdsu.edu

Was a consultant retained to complete this checklist? ■ Yes ☐ No If Yes, complete the following

Consultant Name: Dudek Contact Phone: 760-479-4876

Company Name: Contact Email:

Project Information

1. What is the size of the project (acres)? 169
2. Identify all applicable proposed land uses:
   - ☐ Residential (indicate # of single-family units):
   - ☐ Residential (indicate # of multi-family units):
   - ☐ Commercial (total square footage):
   - ☐ Industrial (total square footage):
   - ■ Other (describe): See project description attached.
3. Is the project or a portion of the project located in a Transit Priority Area? ■ Yes ☐ No
4. Provide a brief description of the project proposed:

See project description attached.

[2] Certain projects seeking ministerial approval may be required to complete the Checklist. For example, projects in a Community Plan Implementation Overlay Zone may be required to use the Checklist to qualify for ministerial level review. See Supplemental Development Regulations in the project's community plan to determine applicability.

CAP CONSISTENCY CHECKLIST QUESTIONS

Step 1: Land Use Consistency

The first step in determining CAP consistency for discretionary development projects is to assess the project's consistency with the growth projections used in the development of the CAP. This section allows the City to determine a project's consistency with the land use assumptions used in the CAP.

Step 1: Land Use Consistency		
Checklist Item (Check the appropriate box and provide explanation and supporting documentation for your answer)	Yes	No
A. Is the proposed project consistent with the existing General Plan and Community Plan land use and zoning designations?;[3] OR, B. If the proposed project is not consistent with the existing land use plan and zoning designations, and includes a land use plan and/or zoning designation amendment, would the proposed amendment result in an increased density within a Transit Priority Area (TPA)[4] and implement CAP Strategy 3 actions, as determined in Step 3 to the satisfaction of the Development Services Department?; OR, C. If the proposed project is not consistent with the existing land use plan and zoning designations, does the project include a land use plan and/or zoning designation amendment that would result in an equivalent or less GHG-intensive project when compared to the existing designations?	☑	☐

If "***Yes***," proceed to Step 2 of the Checklist. For question B above, complete Step 3. For question C above, provide estimated project emissions under both existing and proposed designation(s) for comparison. Compare the maximum buildout of the existing designation and the maximum buildout of the proposed designation.

If "***No***," in accordance with the City's Significance Determination Thresholds, the project's GHG impact is significant. The project must nonetheless incorporate each of the measures identified in Step 2 to mitigate cumulative GHG emissions impacts unless the decision maker finds that a measure is infeasible in accordance with CEQA Guidelines Section 15091. Proceed and complete Step 2 of the Checklist.

[3] This question may also be answered in the affirmative if the project is consistent with SANDAG Series 12 growth projections, which were used to determine the CAP projections, as determined by the Planning Department.

[4] This category applies to all projects that answered in the affirmative to question 3 on the previous page: Is the project or a portion of the project located in a transit priority area.

Step 2: CAP Strategies Consistency

The second step of the CAP consistency review is to review and evaluate a project's consistency with the applicable strategies and actions of the CAP. Step 2 only applies to development projects that involve permits that would require a certificate of occupancy from the Building Official or projects comprised of one and two family dwellings or townhouses as defined in the California Residential Code and their accessory structures.[5] All other development projects that would not require a certificate of occupancy from the Building Official shall implement Best Management Practices for construction activities as set forth in the Greenbook (for public projects).

Step 2: CAP Strategies Consistency			
Checklist Item (Check the appropriate box and provide explanation for your answer)	Yes	No	N/A
Strategy 1: Energy & Water Efficient Buildings			
1. *Cool/Green Roofs*. • Would the project include roofing materials with a minimum 3-year aged solar reflection and thermal emittance or solar reflection index equal to or greater than the values specified in the voluntary measures under California Green Building Standards Code (Attachment A)?; OR • Would the project roof construction have a thermal mass over the roof membrane, including areas of vegetated (green) roofs, weighing at least 25 pounds per square foot as specified in the voluntary measures under California Green Building Standards Code?; OR • Would the project include a combination of the above two options? Check "N/A" only if the project does not include a roof component.	☑	☐	☐

[5] Actions that are not subject to Step 2 would include, for example: 1) discretionary map actions that do not propose specific development, 2) permits allowing wireless communication facilities, 3) special events permits, 4) use permits or other permits that do not result in the expansion or enlargement of a building (e.g., decks, garages, etc.), and 5) non-building infrastructure projects such as roads and pipelines. Because such actions would not result in new occupancy buildings from which GHG emissions reductions could be achieved, the items contained in Step 2 would not be applicable.

2. *Plumbing fixtures and fittings* With respect to plumbing fixtures or fittings provided as part of the project, would those low-flow fixtures/appliances be consistent with each of the following: Residential buildings: • Kitchen faucets: maximum flow rate not to exceed 1.5 gallons per minute at 60 psi; • Standard dishwashers: 4.25 gallons per cycle; • Compact dishwashers: 3.5 gallons per cycle; and • Clothes washers: water factor of 6 gallons per cubic feet of drum capacity? Nonresidential buildings: • Plumbing fixtures and fittings that do not exceed the maximum flow rate specified in Table A5.303.2.3.1 (voluntary measures) of the California Green Building Standards Code (See Attachment A); and • Appliances and fixtures for commercial applications that meet the provisions of Section A5.303.3 (voluntary measures) of the California Green Building Standards Code (See Attachment A)? Check "N/A" only if the project does not include any plumbing fixtures or fittings.	☑	☐	☐

Strategy 3: Bicycling, Walking, Transit & Land Use			
3. *Electric Vehicle Charging* • Multiple-family projects of 17 dwelling units or less: Would 3% of the total parking spaces required, or a minimum of one space, whichever is greater, be provided with a listed cabinet, box or enclosure connected to a conduit linking the parking spaces with the electrical service, in a manner approved by the building and safety official, to allow for the future installation of electric vehicle supply equipment to provide electric vehicle charging stations at such time as it is needed for use by residents? • Multiple-family projects of more than 17 dwelling units: Of the total required listed cabinets, boxes or enclosures, would 50% have the necessary electric vehicle supply equipment installed to provide active electric vehicle charging stations ready for use by residents? • Non-residential projects: Of the total required listed cabinets, boxes or enclosures, would 50% have the necessary electric vehicle supply equipment installed to provide active electric vehicle charging stations ready for use? Check "N/A" only if the project is a single-family project or would not require the provision of listed cabinets, boxes, or enclosures connected to a conduit linking the parking spaces with electrical service, e.g., projects requiring fewer than 10 parking spaces.	☑	☐	☐

Strategy 3: Bicycling, Walking, Transit & Land Use (Complete this section if project includes non-residential or mixed uses)			
4. *Bicycle Parking Spaces* Would the project provide more short- and long-term bicycle parking spaces than required in the City's Municipal Code (Chapter 14, Article 2, Division 5)?[6] Check "N/A" only if the project is a residential project.	☑	☐	☐

[6] Non-portable bicycle corrals within 600 feet of project frontage can be counted towards the project's bicycle parking requirements.

5. *Shower facilities*

If the project includes nonresidential development that would accommodate over 10 tenant occupants (employees), would the project include changing/shower facilities in accordance with the voluntary measures under the California Green Building Standards Code as shown in the table below?

Number of Tenant Occupants (Employees)	Shower/Changing Facilities Required	Two-Tier (12" X 15" X 72") Personal Effects Lockers Required
0-10	0	0
11-50	1 shower stall	2
51-100	1 shower stall	3
101-200	1 shower stall	4
Over 200	1 shower stall plus 1 additional shower stall for each 200 additional tenant-occupants	1 two-tier locker plus 1 two-tier locker for each 50 additional tenant-occupants

☑ ☐ ☐

Check "N/A" only if the project is a residential project, or if it does not include nonresidential development that would accommodate over 10 tenant occupants (employees).

6. *Designated Parking Spaces*

If the project includes a nonresidential use in a TPA, would the project provide designated parking for a combination of low-emitting, fuel-efficient, and carpool/vanpool vehicles in accordance with the following table?

Number of Required Parking Spaces	Number of Designated Parking Spaces
0-9	0
10-25	2
26-50	4
51-75	6
76-100	9
101-150	11
151-200	18
201 and over	At least 10% of total

This measure does not cover electric vehicles. See Question 4 for electric vehicle parking requirements.

Note: Vehicles bearing Clean Air Vehicle stickers from expired HOV lane programs may be considered eligible for designated parking spaces. The required designated parking spaces are to be provided within the overall minimum parking requirement, not in addition to it.

Check "N/A" only if the project is a residential project, or if it does not include nonresidential use in a TPA.

☑ ☐ ☐

7. *Transportation Demand Management Program*

If the project would accommodate over 50 tenant-occupants (employees), would it include a transportation demand management program that would be applicable to existing tenants and future tenants that includes:

At least one of the following components:

- Parking cash out program
- Parking management plan that includes charging employees market-rate for single-occupancy vehicle parking and providing reserved, discounted, or free spaces for registered carpools or vanpools
- Unbundled parking whereby parking spaces would be leased or sold separately from the rental or purchase fees for the development for the life of the development

And at least three of the following components:

- Commitment to maintaining an employer network in the SANDAG iCommute program and promoting its RideMatcher service to tenants/employees
- On-site carsharing vehicle(s) or bikesharing
- Flexible or alternative work hours
- Telework program
- Transit, carpool, and vanpool subsidies
- Pre-tax deduction for transit or vanpool fares and bicycle commute costs
- Access to services that reduce the need to drive, such as cafes, commercial stores, banks, post offices, restaurants, gyms, or childcare, either onsite or within 1,320 feet (1/4 mile) of the structure/use?

Check "N/A" only if the project is a residential project or if it would not accommodate over 50 tenant-occupants (employees).

☑	☐	☐

Step 3: Project CAP Conformance Evaluation (if applicable)

The third step of the CAP consistency review only applies if Step 1 is answered in the affirmative under option B. The purpose of this step is to determine whether a project that is located in a TPA but that includes a land use plan and/or zoning designation amendment is nevertheless consistent with the assumptions in the CAP because it would implement CAP Strategy 3 actions. In general, a project that would result in a reduction in density inside a TPA would not be consistent with Strategy 3.The following questions must each be answered in the affirmative and fully explained.

1. **Would the proposed project implement the General Plan's City of Villages strategy in an identified Transit Priority Area (TPA) that will result in an increase in the capacity for transit-supportive residential and/or employment densities?**
   Considerations for this question:
   - Does the proposed land use and zoning designation associated with the project provide capacity for transit-supportive residential densities within the TPA?
   - Is the project site suitable to accommodate mixed-use village development, as defined in the General Plan, within the TPA?
   - Does the land use and zoning associated with the project increase the capacity for transit-supportive employment intensities within the TPA?

2. **Would the proposed project implement the General Plan's Mobility Element in Transit Priority Areas to increase the use of transit?**
   Considerations for this question:
   - Does the proposed project support/incorporate identified transit routes and stops/stations?
   - Does the project include transit priority measures?

3. **Would the proposed project implement pedestrian improvements in Transit Priority Areas to increase walking opportunities?**
   Considerations for this question:
   - Does the proposed project circulation system provide multiple and direct pedestrian connections and accessibility to local activity centers (such as transit stations, schools, shopping centers, and libraries)?
   - Does the proposed project urban design include features for walkability to promote a transit supportive environment?

4. **Would the proposed project implement the City of San Diego's Bicycle Master Plan to increase bicycling opportunities?**
   Considerations for this question:
   - Does the proposed project circulation system include bicycle improvements consistent with the Bicycle Master Plan?
   - Does the overall project circulation system provide a balanced, multimodal, "complete streets" approach to accommodate mobility needs of all users?

5. **Would the proposed project incorporate implementation mechanisms that support Transit Oriented Development?**
   Considerations for this question:
   - Does the proposed project include new or expanded urban public spaces such as plazas, pocket parks, or urban greens in the TPA?
   - Does the land use and zoning associated with the proposed project increase the potential for jobs within the TPA?
   - Do the zoning/implementing regulations associated with the proposed project support the efficient use of parking through mechanisms such as: shared parking, parking districts, unbundled parking, reduced parking, paid or time-limited parking, etc.?

6. **Would the proposed project implement the Urban Forest Management Plan to increase urban tree canopy coverage?**
   Considerations for this question:
   - Does the proposed project provide at least three different species for the primary, secondary and accent trees in order to accommodate varying parkway widths?
   - Does the proposed project include policies or strategies for preserving existing trees?
   - Does the proposed project incorporate tree planting that will contribute to the City's 20% urban canopy tree coverage goal?

CLIMATE ACTION PLAN CONSISTENCY CHECKLIST
ATTACHMENT A

This attachment provides performance standards for applicable Climate Action Pan (CAP) Consistency Checklist measures.

Table 1 **Roof Design Values for Question 1: Cool/Green Roofs supporting Strategy 1: Energy & Water Efficient Buildings of the Climate Action Plan**

Land Use Type	Roof Slope	Minimum 3-Year Aged Solar Reflectance	Thermal Emittance	Solar Reflective Index
Low-Rise Residential	≤ 2:12	0.55	0.75	64
	> 2:12	0.20	0.75	16
High-Rise Residential Buildings, Hotels and Motels	≤ 2:12	0.55	0.75	64
	> 2:12	0.20	0.75	16
Non-Residential	≤ 2:12	0.55	0.75	64
	> 2:12	0.20	0.75	16

Source: Adapted from the California Green Building Standards Code (CALGreen) Tier 1 residential and non-residential voluntary measures shown in Tables A4.106.5.1 and A5.106.11.2.2, respectively. Roof installation and verification shall occur in accordance with the CALGreen Code.

CALGreen does not include recommended values for low-rise residential buildings with roof slopes of ≤ 2:12 for San Diego's climate zones (7 and 10). Therefore, the values for climate zone 15 that covers Imperial County are adapted here.

Solar Reflectance Index (SRI) equal to or greater than the values specified in this table may be used as an alternative to compliance with the aged solar reflectance values and thermal emittance.

Table 2	**Fixture Flow Rates for Non-Residential Buildings related to Question 2: Plumbing Fixtures and Fittings supporting Strategy 1: Energy & Water Efficient Buildings of the Climate Action Plan**
Fixture Type	**Maximum Flow Rate**
Showerheads	1.8 gpm @ 80 psi
Lavatory Faucets	0.35 gpm @60 psi
Kitchen Faucets	1.6 gpm @ 60 psi
Wash Fountains	1.6 [rim space(in.)/20 gpm @ 60 psi]
Metering Faucets	0.18 gallons/cycle
Metering Faucets for Wash Fountains	0.18 [rim space(in.)/20 gpm @ 60 psi]
Gravity Tank-type Water Closets	1.12 gallons/flush
Flushometer Tank Water Closets	1.12 gallons/flush
Flushometer Valve Water Closets	1.12 gallons/flush
Electromechanical Hydraulic Water Closets	1.12 gallons/flush
Urinals	0.5 gallons/flush

Source: Adapted from the California Green Building Standards Code (CALGreen) Tier 1 non-residential voluntary measures shown in Tables A5.303.2.3.1 and A5.106.11.2.2, respectively. See the California Plumbing Code for definitions of each fixture type.

Where complying faucets are unavailable, aerators rated at 0.35 gpm or other means may be used to achieve reduction.

Acronyms:
gpm = gallons per minute
psi = pounds per square inch (unit of pressure)
in. = inch

Table 3	Standards for Appliances and Fixtures for Commercial Application related to Question 2: Plumbing Fixtures and Fittings supporting Strategy 1: Energy & Water Efficient Buildings of the Climate Action Plan	
Appliance/Fixture Type	**Standard**	
Clothes Washers	Maximum Water Factor (WF) that will reduce the use of water by 10 percent below the California Energy Commissions' WF standards for commercial clothes washers located in Title 20 of the *California Code of Regulations.*	
Conveyor-type Dishwashers	0.70 maximum gallons per rack (2.6 L) (High-Temperature)	0.62 maximum gallons per rack (4.4 L) (Chemical)
Door-type Dishwashers	0.95 maximum gallons per rack (3.6 L) (High-Temperature)	1.16 maximum gallons per rack (2.6 L) (Chemical)
Undercounter-type Dishwashers	0.90 maximum gallons per rack (3.4 L) (High-Temperature)	0.98 maximum gallons per rack (3.7 L) (Chemical)
Combination Ovens	Consume no more than 10 gallons per hour (38 L/h) in the full operational mode.	
Commercial Pre-rinse Spray Valves (manufactured on or after January 1, 2006)	Function at equal to or less than 1.6 gallons per minute (0.10 L/s) at 60 psi (414 kPa) and • Be capable of cleaning 60 plates in an average time of not more than 30 seconds per plate. • Be equipped with an integral automatic shutoff. • Operate at static pressure of at least 30 psi (207 kPa) when designed for a flow rate of 1.3 gallons per minute (0.08 L/s) or less.	

Source: Adapted from the California Green Building Standards Code (CALGreen) Tier 1 non-residential voluntary measures shown in Section A5.303.3. See the California Plumbing Code for definitions of each appliance/fixture type.

Acronyms:
L = liter
L/h = liters per hour
L/s = liters per second
psi = pounds per square inch (unit of pressure)
kPa = kilopascal (unit of pressure)

APPENDIX B
CALEEMOD® CONSTRUCTION AND OPERATION OUTPUT

List of CalEEMod Runs

APPENDIX B-1
SDSU PROJECT CONSTRUCTION
(2020 – 2023)

SDSU

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	1,165.00	1000sqft	5.87	1,165,000.00	0
Medical Office Building	100.00	1000sqft	0.50	100,000.00	0
Research & Development	301.00	1000sqft	1.52	301,000.00	0
Enclosed Parking with Elevator	11,270.00	Space	0.73	4,508,000.00	0
City Park	6.00	Acre	6.00	261,360.00	0
City Park	50.00	Acre	50.00	2,178,000.00	0
City Park	27.60	Acre	27.60	1,202,256.00	0
Health Club	25.00	1000sqft	0.13	25,000.00	0
Hotel	400.00	Room	2.92	580,800.00	0
User Defined Recreational	14.82	User Defined Unit	14.82	645,559.20	0
Apartments High Rise	2,220.00	Dwelling Unit	7.86	2,220,000.00	6349
Apartments Mid Rise	2,010.00	Dwelling Unit	11.60	2,010,000.00	5749
Apartments Mid Rise	300.00	Dwelling Unit	1.73	300,000.00	858
Condo/Townhouse High Rise	70.00	Dwelling Unit	0.24	70,000.00	200
Regional Shopping Center	83.00	1000sqft	0.42	83,000.00	0
Supermarket	12.00	1000sqft	0.06	12,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2035

Utility Company San Diego Gas & Electric

CO2 Intensity (lb/MWhr)	362.86	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - 60% RPS

Land Use - Project-specific land use.

Construction Phase - Construction schedule based on project-specific information.

Off-road Equipment -

Off-road Equipment - Project-specific equipment.

Off-road Equipment - Project-specific equipment.

Trips and VMT - Worker, Vendor, Hauling trips based on defaults for each phase. Trips for years 2020-2023 are analyzed separately.

Demolition -

Grading -

Architectural Coating - VOC in accordance with SDAPCD Rule 67.0.1. Architectural Coating area information based on individual defaults.

Vehicle Trips - Construction emissions only.

Woodstoves - Construction emissions only.

Area Coating - Construction emissions only.

Energy Use - Construction emissions only.

Water And Wastewater - Construction emissions only.

Solid Waste - Construction emissions only.

Construction Off-road Equipment Mitigation - Tier 3 Equipment. Watering of construction site.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	1,456,180.00	322,780.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	4,368,539.00	968,339.00
tblArchitecturalCoating	ConstArea_Parking	270,480.00	0.00

tblArchitecturalCoating	ConstArea_Residential_Exterior	3,105,000.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	9,315,000.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Parking	270480	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	28.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	16.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	37.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	20.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	50.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	220.00	109.00
tblConstructionPhase	NumDays	3,100.00	412.00
tblConstructionPhase	NumDays	200.00	75.00
tblConstructionPhase	NumDays	200.00	54.00
tblConstructionPhase	NumDays	310.00	130.00
tblConstructionPhase	NumDays	310.00	75.00
tblConstructionPhase	NumDays	310.00	110.00
tblConstructionPhase	NumDays	310.00	98.00
tblConstructionPhase	NumDays	220.00	173.00
tblConstructionPhase	NumDays	120.00	403.00
tblConstructionPhase	NumDays	120.00	370.00
tblConstructionPhase	NumDays	120.00	117.00
tblEnergyUse	LightingElect	741.44	0.00
tblEnergyUse	LightingElect	741.44	0.00
tblEnergyUse	LightingElect	1,001.10	0.00
tblEnergyUse	LightingElect	1.75	0.00
tblEnergyUse	LightingElect	3.81	0.00
tblEnergyUse	LightingElect	2.83	0.00

tblEnergyUse	LightingElect	4.50	0.00
tblEnergyUse	LightingElect	3.81	0.00
tblEnergyUse	LightingElect	6.22	0.00
tblEnergyUse	LightingElect	2.83	0.00
tblEnergyUse	LightingElect	6.94	0.00
tblEnergyUse	NT24E	3,054.10	0.00
tblEnergyUse	NT24E	3,054.10	0.00
tblEnergyUse	NT24E	3,054.10	0.00
tblEnergyUse	NT24E	0.19	0.00
tblEnergyUse	NT24E	4.97	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24E	3.67	0.00
tblEnergyUse	NT24E	4.97	0.00
tblEnergyUse	NT24E	3.16	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24E	25.54	0.00
tblEnergyUse	NT24NG	4,180.00	0.00
tblEnergyUse	NT24NG	4,180.00	0.00
tblEnergyUse	NT24NG	4,180.00	0.00
tblEnergyUse	NT24NG	4.20	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	NT24NG	11.10	0.00
tblEnergyUse	NT24NG	4.20	0.00
tblEnergyUse	NT24NG	1.09	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	NT24NG	15.42	0.00
tblEnergyUse	T24E	209.39	0.00

tblEnergyUse	T24E	209.39	0.00
tblEnergyUse	T24E	209.39	0.00
tblEnergyUse	T24E	3.92	0.00
tblEnergyUse	T24E	4.66	0.00
tblEnergyUse	T24E	1.21	0.00
tblEnergyUse	T24E	4.78	0.00
tblEnergyUse	T24E	4.66	0.00
tblEnergyUse	T24E	3.18	0.00
tblEnergyUse	T24E	1.21	0.00
tblEnergyUse	T24E	3.25	0.00
tblEnergyUse	T24NG	3,248.74	0.00
tblEnergyUse	T24NG	3,248.74	0.00
tblEnergyUse	T24NG	3,248.74	0.00
tblEnergyUse	T24NG	15.99	0.00
tblEnergyUse	T24NG	4.31	0.00
tblEnergyUse	T24NG	47.27	0.00
tblEnergyUse	T24NG	15.99	0.00
tblEnergyUse	T24NG	1.14	0.00
tblEnergyUse	T24NG	4.31	0.00
tblEnergyUse	T24NG	9.70	0.00
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00

tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	1,221.00	0.00
tblFireplaces	NumberGas	1,270.50	0.00
tblFireplaces	NumberGas	38.50	0.00
tblFireplaces	NumberNoFireplace	222.00	0.00
tblFireplaces	NumberNoFireplace	231.00	0.00
tblFireplaces	NumberNoFireplace	7.00	0.00
tblFireplaces	NumberWood	777.00	0.00
tblFireplaces	NumberWood	808.50	0.00
tblFireplaces	NumberWood	24.50	0.00
tblGrading	AcresOfGrading	975.00	325.00
tblGrading	AcresOfGrading	600.00	187.50
tblGrading	AcresOfGrading	770.00	275.00
tblGrading	AcresOfGrading	539.00	245.00
tblLandUse	LandUseSquareFeet	0.00	645,559.20
tblLandUse	LotAcreage	26.74	5.87
tblLandUse	LotAcreage	2.30	0.50
tblLandUse	LotAcreage	6.91	1.52
tblLandUse	LotAcreage	101.43	0.73
tblLandUse	LotAcreage	0.57	0.13
tblLandUse	LotAcreage	13.33	2.92
tblLandUse	LotAcreage	0.00	14.82
tblLandUse	LotAcreage	35.81	7.86
tblLandUse	LotAcreage	52.89	11.60
tblLandUse	LotAcreage	7.89	1.73
tblLandUse	LotAcreage	1.09	0.24

tblLandUse	LotAcreage	1.91	0.42
tblLandUse	LotAcreage	0.28	0.06
tblOffRoadEquipment	HorsePower	85.00	1,001.00
tblOffRoadEquipment	HorsePower	85.00	1,001.00
tblOffRoadEquipment	LoadFactor	0.78	0.74
tblOffRoadEquipment	LoadFactor	0.78	0.74
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	8.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	5.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	8.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	5.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	8.00
tblOffRoadEquipment	UsageHours	8.00	16.00
tblOffRoadEquipment	UsageHours	8.00	16.00
tblOffRoadEquipment	UsageHours	7.00	16.00
tblOffRoadEquipment	UsageHours	8.00	16.00
tblOffRoadEquipment	UsageHours	8.00	16.00
tblOffRoadEquipment	UsageHours	8.00	16.00
tblOffRoadEquipment	UsageHours	8.00	16.00
tblOffRoadEquipment	UsageHours	8.00	16.00
tblOffRoadEquipment	UsageHours	8.00	16.00

tblOffRoadEquipment	UsageHours	7.00	16.00
tblOffRoadEquipment	UsageHours	8.00	16.00
tblProjectCharacteristics	CO2IntensityFactor	720.49	362.86
tblSolidWaste	SolidWasteGenerationRate	1,021.20	0.00
tblSolidWaste	SolidWasteGenerationRate	1,062.60	0.00
tblSolidWaste	SolidWasteGenerationRate	7.19	0.00
tblSolidWaste	SolidWasteGenerationRate	32.20	0.00
tblSolidWaste	SolidWasteGenerationRate	1,083.45	0.00
tblSolidWaste	SolidWasteGenerationRate	142.50	0.00
tblSolidWaste	SolidWasteGenerationRate	219.00	0.00
tblSolidWaste	SolidWasteGenerationRate	1,080.00	0.00
tblSolidWaste	SolidWasteGenerationRate	87.15	0.00
tblSolidWaste	SolidWasteGenerationRate	22.87	0.00
tblSolidWaste	SolidWasteGenerationRate	67.68	0.00
tblTripsAndVMT	HaulingTripNumber	21,259.00	0.00
tblTripsAndVMT	HaulingTripNumber	21,259.00	0.00
tblTripsAndVMT	VendorTripNumber	2,305.00	0.00
tblTripsAndVMT	WorkerTripNumber	53.00	0.00
tblTripsAndVMT	WorkerTripNumber	63.00	0.00
tblTripsAndVMT	WorkerTripNumber	35.00	0.00
tblTripsAndVMT	WorkerTripNumber	58.00	0.00
tblTripsAndVMT	WorkerTripNumber	30.00	0.00
tblTripsAndVMT	WorkerTripNumber	7,792.00	0.00
tblTripsAndVMT	WorkerTripNumber	48.00	0.00
tblTripsAndVMT	WorkerTripNumber	23.00	0.00
tblTripsAndVMT	WorkerTripNumber	53.00	0.00
tblTripsAndVMT	WorkerTripNumber	28.00	0.00

tblTripsAndVMT	WorkerTripNumber	1,558.00	0.00
tblTripsAndVMT	WorkerTripNumber	40.00	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00

tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	HO_TL	7.50	0.00
tblVehicleTrips	HO_TL	7.50	0.00
tblVehicleTrips	HO_TL	7.50	0.00
tblVehicleTrips	HS_TL	7.30	0.00
tblVehicleTrips	HS_TL	7.30	0.00
tblVehicleTrips	HS_TL	7.30	0.00
tblVehicleTrips	HW_TL	10.80	0.00
tblVehicleTrips	HW_TL	10.80	0.00
tblVehicleTrips	HW_TL	10.80	0.00
tblVehicleTrips	ST_TR	4.98	0.00
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	4.31	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	8.96	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	ST_TR	1.90	0.00
tblVehicleTrips	ST_TR	177.59	0.00
tblVehicleTrips	SU_TR	3.65	0.00
tblVehicleTrips	SU_TR	5.86	0.00

tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	3.43	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	1.55	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	SU_TR	1.11	0.00
tblVehicleTrips	SU_TR	166.44	0.00
tblVehicleTrips	WD_TR	4.20	0.00
tblVehicleTrips	WD_TR	6.65	0.00
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	4.18	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	8.17	0.00
tblVehicleTrips	WD_TR	36.13	0.00
tblVehicleTrips	WD_TR	42.70	0.00
tblVehicleTrips	WD_TR	8.11	0.00
tblVehicleTrips	WD_TR	102.24	0.00
tblWater	IndoorWaterUseRate	144,641,936.88	0.00
tblWater	IndoorWaterUseRate	150,505,799.19	0.00
tblWater	IndoorWaterUseRate	4,560,781.79	0.00
tblWater	IndoorWaterUseRate	207,059,816.41	0.00
tblWater	IndoorWaterUseRate	1,478,578.60	0.00
tblWater	IndoorWaterUseRate	10,146,708.00	0.00
tblWater	IndoorWaterUseRate	12,548,053.76	0.00

tblWater	IndoorWaterUseRate	6,148,019.28	0.00
tblWater	IndoorWaterUseRate	147,999,878.11	0.00
tblWater	IndoorWaterUseRate	1,479,218.58	0.00
tblWater	OutdoorWaterUseRate	91,187,308.03	0.00
tblWater	OutdoorWaterUseRate	94,884,090.79	0.00
tblWater	OutdoorWaterUseRate	99,607,840.83	0.00
tblWater	OutdoorWaterUseRate	2,875,275.48	0.00
tblWater	OutdoorWaterUseRate	126,907,629.41	0.00
tblWater	OutdoorWaterUseRate	906,225.59	0.00
tblWater	OutdoorWaterUseRate	1,127,412.00	0.00
tblWater	OutdoorWaterUseRate	2,390,105.48	0.00
tblWater	OutdoorWaterUseRate	3,768,140.85	0.00
tblWater	OutdoorWaterUseRate	45,749.03	0.00
tblWoodstoves	NumberCatalytic	111.00	0.00
tblWoodstoves	NumberCatalytic	115.50	0.00
tblWoodstoves	NumberCatalytic	3.50	0.00
tblWoodstoves	NumberNoncatalytic	111.00	0.00
tblWoodstoves	NumberNoncatalytic	115.50	0.00
tblWoodstoves	NumberNoncatalytic	3.50	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	1.9727	19.3989	13.0936	0.0236	2.9244	0.9460	3.8705	1.5314	0.8816	2.4129	0.0000	2,040.5773	2,040.5773	0.5818	0.0000	2,055.1217
2021	2.7854	25.3282	18.7845	0.0326	5.0530	1.2888	6.3418	2.7201	1.2086	3.9287	0.0000	2,777.2834	2,777.2834	0.7018	0.0000	2,794.8271
2022	9.4412	51.4849	31.5742	0.0764	11.0223	1.9720	12.9944	4.0379	1.8576	5.8956	0.0000	7,075.7989	7,075.7989	1.4147	0.0000	7,111.1674
2023	0.6915	7.1563	4.7435	9.9000e-003	4.6972	0.3292	5.0264	2.5820	0.3028	2.8848	0.0000	869.7181	869.7181	0.2813	0.0000	876.7502
Maximum	**9.4412**	**51.4849**	**31.5742**	**0.0764**	**11.0223**	**1.9720**	**12.9944**	**4.0379**	**1.8576**	**5.8956**	**0.0000**	**7,075.7989**	**7,075.7989**	**1.4147**	**0.0000**	**7,111.1674**

2.1 Overall Construction

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					
2020	0.8138	11.9093	14.5123	0.0236	1.1405	0.6021	1.7427	0.5972	0.6021	1.1994	0.0000	2,040.5749	2,040.5749	0.5818	0.0000	2,055.1192
2021	1.2767	16.7642	20.6766	0.0326	1.9707	0.9142	2.8849	1.0609	0.9142	1.9751	0.0000	2,777.2801	2,777.2801	0.7018	0.0000	2,794.8238
2022	6.3931	36.5823	44.4282	0.0764	4.2987	1.6528	5.9515	1.5748	1.6528	3.2276	0.0000	7,075.7905	7,075.7905	1.4147	0.0000	7,111.1589
2023	0.2421	4.9571	5.9696	9.9000e-003	1.8319	0.2460	2.0779	1.0070	0.2460	1.2530	0.0000	869.7171	869.7171	0.2813	0.0000	876.7492
Maximum	**6.3931**	**36.5823**	**44.4282**	**0.0764**	**4.2987**	**1.6528**	**5.9515**	**1.5748**	**1.6528**	**3.2276**	**0.0000**	**7,075.7905**	**7,075.7905**	**1.4147**	**0.0000**	**7,111.1589**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**41.40**	**32.08**	**-25.50**	**0.00**	**61.00**	**24.71**	**55.17**	**61.00**	**19.65**	**49.38**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**2-3-2020**	**5-2-2020**	4.6998	2.7349
2	**5-3-2020**	**8-2-2020**	4.8553	2.8291
3	**8-3-2020**	**11-2-2020**	7.1547	4.3363
4	**11-3-2020**	**2-2-2021**	6.9789	4.3171
5	**2-3-2021**	**5-2-2021**	6.4473	4.1431
6	**5-3-2021**	**8-2-2021**	6.6646	4.2828
7	**8-3-2021**	**11-2-2021**	6.6646	4.2828
8	**11-3-2021**	**2-2-2022**	14.8088	9.9224

9	**2-3-2022**	**5-2-2022**	23.5190	16.6253
10	**5-3-2022**	**8-2-2022**	18.2162	13.6291
11	**8-3-2022**	**11-2-2022**	6.3561	4.0765
12	**11-3-2022**	**2-2-2023**	4.7876	3.0856
13	**2-3-2023**	**5-2-2023**	1.9188	1.2712
14	**5-3-2023**	**8-2-2023**	1.9835	1.3141
15	**8-3-2023**	**9-30-2023**	1.2720	0.8427
		Highest	23.5190	16.6253

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	41.2646	0.3938	34.1584	1.8100e-003		0.1899	0.1899		0.1899	0.1899	0.0000	56.0329	56.0329	0.0537	0.0000	57.3761
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**41.2646**	**0.3938**	**34.1584**	**1.8100e-003**	**0.0000**	**0.1899**	**0.1899**	**0.0000**	**0.1899**	**0.1899**	**0.0000**	**56.0329**	**56.0329**	**0.0537**	**0.0000**	**57.3761**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	41.2646	0.3938	34.1584	1.8100e-003		0.1899	0.1899		0.1899	0.1899	0.0000	56.0329	56.0329	0.0537	0.0000	57.3761
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**41.2646**	**0.3938**	**34.1584**	**1.8100e-003**	**0.0000**	**0.1899**	**0.1899**	**0.0000**	**0.1899**	**0.1899**	**0.0000**	**56.0329**	**56.0329**	**0.0537**	**0.0000**	**57.3761**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading Phase A	Grading	2/1/2020	7/31/2020	5	130	
2	Site Preparation Phase A	Site Preparation	8/1/2020	12/31/2021	5	370	
3	Building Construction Stadium (Phase A)	Building Construction	8/1/2020	3/1/2022	5	412	
4	Grading Phase A (cont'd)	Grading	12/1/2021	4/15/2022	5	98	
5	Paving Stadium (Phase A)	Paving	12/1/2021	7/31/2022	5	173	
6	Demolition of SDCCU (Phase A)	Demolition	1/1/2022	4/15/2022	5	75	
7	Site Preparation Phase B (utilities)	Site Preparation	1/1/2022	6/14/2022	5	117	
8	Architectural Coating Stadium (Phase A)	Architectural Coating	3/1/2022	7/31/2022	5	109	
9	Demolition of SDCCU (Phase B)	Demolition	4/16/2022	6/30/2022	5	54	
10	Grading Phase B (Rough Residential Pad & Initial River Park)	Grading	4/16/2022	7/31/2022	5	75	
11	Finish Phase B (Finish Residential Pad and River Park)	Site Preparation	6/15/2022	12/31/2023	5	403	
12	Grading Phase C	Grading	8/1/2022	12/31/2022	5	110	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.73

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 968,339; Non-Residential Outdoor: 322,780; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading Phase A	Excavators	4	8.00	158	0.38
Grading Phase A	Graders	3	8.00	187	0.41
Grading Phase A	Rubber Tired Dozers	2	8.00	247	0.40

Grading Phase A	Scrapers	6	8.00	367	0.48
Grading Phase A	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Site Preparation Phase A	Rubber Tired Dozers	6	8.00	247	0.40
Site Preparation Phase A	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Building Construction Stadium (Phase A)	Cranes	3	16.00	231	0.29
Building Construction Stadium (Phase A)	Forklifts	6	16.00	89	0.20
Building Construction Stadium (Phase A)	Generator Sets	3	16.00	84	0.74
Building Construction Stadium (Phase A)	Tractors/Loaders/Backhoes	5	16.00	97	0.37
Building Construction Stadium (Phase A)	Welders	8	16.00	46	0.45
Grading Phase A (cont'd)	Excavators	4	8.00	158	0.38
Grading Phase A (cont'd)	Graders	3	8.00	187	0.41
Grading Phase A (cont'd)	Rubber Tired Dozers	3	8.00	247	0.40
Grading Phase A (cont'd)	Scrapers	4	8.00	367	0.48
Grading Phase A (cont'd)	Tractors/Loaders/Backhoes	5	8.00	97	0.37
Grading Phase B (Rough Residential Pad & Initial River Park)	Excavators	6	8.00	158	0.38
Grading Phase B (Rough Residential Pad & Initial River Park)	Graders	4	8.00	187	0.41
Grading Phase B (Rough Residential Pad & Initial River Park)	Rubber Tired Dozers	3	8.00	247	0.40
Grading Phase B (Rough Residential Pad & Initial River Park)	Scrapers	6	8.00	367	0.48
Grading Phase B (Rough Residential Pad & Initial River Park)	Tractors/Loaders/Backhoes	6	8.00	97	0.37
Site Preparation Phase B (utilities)	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation Phase B (utilities)	Tractors/Loaders/Backhoes	8	8.00	97	0.37
Paving Stadium (Phase A)	Pavers	3	8.00	130	0.42
Paving Stadium (Phase A)	Paving Equipment	2	8.00	132	0.36
Paving Stadium (Phase A)	Rollers	4	8.00	80	0.38
Demolition of SDCCU (Phase A)	Concrete/Industrial Saws	5	16.00	81	0.73

Demolition of SDCCU (Phase A)	Crushing/Proc. Equipment	3	16.00	1001	0.74
Demolition of SDCCU (Phase A)	Excavators	5	16.00	158	0.38
Demolition of SDCCU (Phase A)	Rubber Tired Dozers	8	16.00	247	0.40
Architectural Coating Stadium (Phase A)	Air Compressors	8	6.00	78	0.48
Demolition of SDCCU (Phase B)	Concrete/Industrial Saws	5	16.00	81	0.73
Demolition of SDCCU (Phase B)	Crushing/Proc. Equipment	3	16.00	1001	0.74
Demolition of SDCCU (Phase B)	Excavators	5	16.00	158	0.38
Demolition of SDCCU (Phase B)	Rubber Tired Dozers	3	16.00	247	0.40
Finish Phase B (Finish Residential Pad and River Park)	Rubber Tired Dozers	6	8.00	247	0.40
Finish Phase B (Finish Residential Pad and River Park)	Tractors/Loaders/Backhoes	8	8.00	97	0.37
Grading Phase C	Excavators	4	8.00	158	0.38
Grading Phase C	Graders	6	8.00	187	0.41
Grading Phase C	Rubber Tired Dozers	3	8.00	247	0.40
Grading Phase C	Scrapers	4	8.00	367	0.48
Grading Phase C	Tractors/Loaders/Backhoes	6	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
Grading Phase A	21	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation Phase A	12	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction Stadium (Phase A)	25	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading Phase A (cont'd)	19	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading Phase B (Rough Residential Pa	25	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation Phase B (utilities)	11	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving Stadium (Phase A)	9	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition of SDCCU (Phase A)	21	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating Stadium (Phase A)	8	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition of SDCCU (Phase B)	16	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Finish Phase B (Finish Residential Pad and P	14	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading Phase C	23	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Grading Phase A - 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					
Fugitive Dust					0.9552	0.0000	0.9552	0.4489	0.0000	0.4489	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.7658	8.7383	5.5385	0.0109		0.3726	0.3726		0.3428	0.3428	0.0000	954.6768	954.6768	0.3088	0.0000	962.3959
Total	**0.7658**	**8.7383**	**5.5385**	**0.0109**	**0.9552**	**0.3726**	**1.3278**	**0.4489**	**0.3428**	**0.7918**	**0.0000**	**954.6768**	**954.6768**	**0.3088**	**0.0000**	**962.3959**

Unmitigated Construction Off-Site

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

3.2 Grading Phase A - 2020

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					0.3725	0.0000	0.3725	0.1751	0.0000	0.1751	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2669	5.2636	6.3571	0.0109		0.2280	0.2280		0.2280	0.2280	0.0000	954.6757	954.6757	0.3088	0.0000	962.3947
Total	**0.2669**	**5.2636**	**6.3571**	**0.0109**	**0.3725**	**0.2280**	**0.6005**	**0.1751**	**0.2280**	**0.4031**	**0.0000**	**954.6757**	**954.6757**	**0.3088**	**0.0000**	**962.3947**

Mitigated Construction Off-Site

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

3.3 Site Preparation Phase A - 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					
Fugitive Dust					1.9692	0.0000	1.9692	1.0824	0.0000	1.0824	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4215	4.3940	2.0965	3.8000e-003		0.2250	0.2250		0.2070	0.2070	0.0000	334.6535	334.6535	0.1082	0.0000	337.3593
Total	**0.4215**	**4.3940**	**2.0965**	**3.8000e-003**	**1.9692**	**0.2250**	**2.1942**	**1.0824**	**0.2070**	**1.2895**	**0.0000**	**334.6535**	**334.6535**	**0.1082**	**0.0000**	**337.3593**

Unmitigated Construction Off-Site

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

3.3 Site Preparation Phase A - 2020

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					0.7680	0.0000	0.7680	0.4222	0.0000	0.4222	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0932	1.8891	2.2474	3.8000e-003		0.0899	0.0899		0.0899	0.0899	0.0000	334.6531	334.6531	0.1082	0.0000	337.3589
Total	**0.0932**	**1.8891**	**2.2474**	**3.8000e-003**	**0.7680**	**0.0899**	**0.8579**	**0.4222**	**0.0899**	**0.5120**	**0.0000**	**334.6531**	**334.6531**	**0.1082**	**0.0000**	**337.3589**

Mitigated Construction Off-Site

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

3.3 Site Preparation Phase A - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.7153	0.0000	4.7153	2.5919	0.0000	2.5919	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.9659	10.0749	4.9313	9.1100e-003		0.5044	0.5044		0.4641	0.4641	0.0000	801.4265	801.4265	0.2592	0.0000	807.9065
Total	**0.9659**	**10.0749**	**4.9313**	**9.1100e-003**	**4.7153**	**0.5044**	**5.2197**	**2.5919**	**0.4641**	**3.0560**	**0.0000**	**801.4265**	**801.4265**	**0.2592**	**0.0000**	**807.9065**

Unmitigated Construction Off-Site

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

3.3 Site Preparation Phase A - 2021

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					1.8390	0.0000	1.8390	1.0108	0.0000	1.0108	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2232	4.5234	5.3813	9.1100e-003		0.2152	0.2152		0.2152	0.2152	0.0000	801.4256	801.4256	0.2592	0.0000	807.9055
Total	**0.2232**	**4.5234**	**5.3813**	**9.1100e-003**	**1.8390**	**0.2152**	**2.0542**	**1.0108**	**0.2152**	**1.2261**	**0.0000**	**801.4256**	**801.4256**	**0.2592**	**0.0000**	**807.9055**

Mitigated Construction Off-Site

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

3.4 Building Construction Stadium (Phase A) - 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	0.7854	6.2666	5.4586	8.9600e-003		0.3484	0.3484		0.3317	0.3317	0.0000	751.2470	751.2470	0.1648	0.0000	755.3665
Total	**0.7854**	**6.2666**	**5.4586**	**8.9600e-003**		**0.3484**	**0.3484**		**0.3317**	**0.3317**	**0.0000**	**751.2470**	**751.2470**	**0.1648**	**0.0000**	**755.3665**

Unmitigated Construction Off-Site

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

3.4 Building Construction Stadium (Phase A) - 2020

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	0.4537	4.7566	5.9079	8.9600e-003		0.2843	0.2843		0.2843	0.2843	0.0000	751.2461	751.2461	0.1648	0.0000	755.3656
Total	**0.4537**	**4.7566**	**5.9079**	**8.9600e-003**		**0.2843**	**0.2843**		**0.2843**	**0.2843**	**0.0000**	**751.2461**	**751.2461**	**0.1648**	**0.0000**	**755.3656**

Mitigated Construction Off-Site

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

3.4 Building Construction Stadium (Phase A) - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.6820	13.7473	12.8051	0.0215		0.7172	0.7172		0.6827	0.6827	0.0000	1,798.9772	1,798.9772	0.3854	0.0000	1,808.6108
Total	**1.6820**	**13.7473**	**12.8051**	**0.0215**		**0.7172**	**0.7172**		**0.6827**	**0.6827**	**0.0000**	**1,798.9772**	**1,798.9772**	**0.3854**	**0.0000**	**1,808.6108**

Unmitigated Construction Off-Site

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

3.4 Building Construction Stadium (Phase A) - 2021

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	1.0041	11.2593	14.0457	0.0215		0.6540	0.6540		0.6540	0.6540	0.0000	1,798.9750	1,798.9750	0.3854	0.0000	1,808.6087
Total	**1.0041**	**11.2593**	**14.0457**	**0.0215**		**0.6540**	**0.6540**		**0.6540**	**0.6540**	**0.0000**	**1,798.9750**	**1,798.9750**	**0.3854**	**0.0000**	**1,808.6087**

Mitigated Construction Off-Site

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

3.4 Building Construction Stadium (Phase A) - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2448	2.0054	2.0321	3.4500e-003		0.0984	0.0984		0.0937	0.0937	0.0000	289.5656	289.5656	0.0611	0.0000	291.0935
Total	**0.2448**	**2.0054**	**2.0321**	**3.4500e-003**		**0.0984**	**0.0984**		**0.0937**	**0.0937**	**0.0000**	**289.5656**	**289.5656**	**0.0611**	**0.0000**	**291.0935**

Unmitigated Construction Off-Site

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

3.4 Building Construction Stadium (Phase A) - 2022

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	0.1529	1.7964	2.2525	3.4500e-003		0.1018	0.1018		0.1018	0.1018	0.0000	289.5653	289.5653	0.0611	0.0000	291.0932
Total	**0.1529**	**1.7964**	**2.2525**	**3.4500e-003**		**0.1018**	**0.1018**		**0.1018**	**0.1018**	**0.0000**	**289.5653**	**289.5653**	**0.0611**	**0.0000**	**291.0932**

Mitigated Construction Off-Site

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

3.5 Grading Phase A (cont'd) - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3377	0.0000	0.3377	0.1282	0.0000	0.1282	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1158	1.2833	0.8030	1.6400e-003		0.0552	0.0552		0.0508	0.0508	0.0000	143.8035	143.8035	0.0465	0.0000	144.9663
Total	**0.1158**	**1.2833**	**0.8030**	**1.6400e-003**	**0.3377**	**0.0552**	**0.3929**	**0.1282**	**0.0508**	**0.1790**	**0.0000**	**143.8035**	**143.8035**	**0.0465**	**0.0000**	**144.9663**

Unmitigated Construction Off-Site

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

3.5 Grading Phase A (cont'd) - 2021

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					0.1317	0.0000	0.1317	0.0500	0.0000	0.0500	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0402	0.7920	0.9641	1.6400e-003		0.0344	0.0344		0.0344	0.0344	0.0000	143.8034	143.8034	0.0465	0.0000	144.9661
Total	**0.0402**	**0.7920**	**0.9641**	**1.6400e-003**	**0.1317**	**0.0344**	**0.1661**	**0.0500**	**0.0344**	**0.0844**	**0.0000**	**143.8034**	**143.8034**	**0.0465**	**0.0000**	**144.9661**

Mitigated Construction Off-Site

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

3.5 Grading Phase A (cont'd) - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.8074	0.0000	0.8074	0.3864	0.0000	0.3864	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3250	3.5030	2.4609	5.3400e-003		0.1479	0.1479		0.1361	0.1361	0.0000	469.2087	469.2087	0.1518	0.0000	473.0025
Total	**0.3250**	**3.5030**	**2.4609**	**5.3400e-003**	**0.8074**	**0.1479**	**0.9553**	**0.3864**	**0.1361**	**0.5225**	**0.0000**	**469.2087**	**469.2087**	**0.1518**	**0.0000**	**473.0025**

Unmitigated Construction Off-Site

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

3.5 Grading Phase A (cont'd) - 2022

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					0.3149	0.0000	0.3149	0.1507	0.0000	0.1507	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1310	2.5827	3.1438	5.3400e-003		0.1122	0.1122		0.1122	0.1122	0.0000	469.2081	469.2081	0.1518	0.0000	473.0019
Total	**0.1310**	**2.5827**	**3.1438**	**5.3400e-003**	**0.3149**	**0.1122**	**0.4271**	**0.1507**	**0.1122**	**0.2629**	**0.0000**	**469.2081**	**469.2081**	**0.1518**	**0.0000**	**473.0019**

Mitigated Construction Off-Site

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

3.6 Paving Stadium (Phase A) - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0216	0.2227	0.2452	3.8000e-004		0.0119	0.0119		0.0110	0.0110	0.0000	33.0761	33.0761	0.0107	0.0000	33.3436
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0216**	**0.2227**	**0.2452**	**3.8000e-004**		**0.0119**	**0.0119**		**0.0110**	**0.0110**	**0.0000**	**33.0761**	**33.0761**	**0.0107**	**0.0000**	**33.3436**

Unmitigated Construction Off-Site

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

3.6 Paving Stadium (Phase A) - 2021

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	9.2600e-003	0.1894	0.2855	3.8000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	33.0761	33.0761	0.0107	0.0000	33.3435
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.2600e-003**	**0.1894**	**0.2855**	**3.8000e-004**		**0.0106**	**0.0106**		**0.0106**	**0.0106**	**0.0000**	**33.0761**	**33.0761**	**0.0107**	**0.0000**	**33.3435**

Mitigated Construction Off-Site

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

3.6 Paving Stadium (Phase A) - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1232	1.2507	1.5889	2.4600e-003		0.0650	0.0650		0.0598	0.0598	0.0000	215.7598	215.7598	0.0698	0.0000	217.5043
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1232**	**1.2507**	**1.5889**	**2.4600e-003**		**0.0650**	**0.0650**		**0.0598**	**0.0598**	**0.0000**	**215.7598**	**215.7598**	**0.0698**	**0.0000**	**217.5043**

Unmitigated Construction Off-Site

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

3.6 Paving Stadium (Phase A) - 2022

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	0.0604	1.2351	1.8620	2.4600e-003		0.0692	0.0692		0.0692	0.0692	0.0000	215.7595	215.7595	0.0698	0.0000	217.5040
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0604**	**1.2351**	**1.8620**	**2.4600e-003**		**0.0692**	**0.0692**		**0.0692**	**0.0692**	**0.0000**	**215.7595**	**215.7595**	**0.0698**	**0.0000**	**217.5040**

Mitigated Construction Off-Site

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

3.7 Demolition of SDCCU (Phase A) - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3291	0.0000	2.3291	0.3527	0.0000	0.3527	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5942	16.7227	8.0393	0.0241		0.5535	0.5535		0.5309	0.5309	0.0000	2,337.3503	2,337.3503	0.2836	0.0000	2,344.4404
Total	**1.5942**	**16.7227**	**8.0393**	**0.0241**	**2.3291**	**0.5535**	**2.8826**	**0.3527**	**0.5309**	**0.8836**	**0.0000**	**2,337.3503**	**2,337.3503**	**0.2836**	**0.0000**	**2,344.4404**

Unmitigated Construction Off-Site

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

3.7 Demolition of SDCCU (Phase A) - 2022

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					0.9084	0.0000	0.9084	0.1376	0.0000	0.1376	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5728	11.2380	13.2773	0.0241		0.4702	0.4702		0.4702	0.4702	0.0000	2,337.347 5	2,337.347 5	0.2836	0.0000	2,344.437 6
Total	**0.5728**	**11.2380**	**13.2773**	**0.0241**	**0.9084**	**0.4702**	**1.3786**	**0.1376**	**0.4702**	**0.6078**	**0.0000**	**2,337.347 5**	**2,337.347 5**	**0.2836**	**0.0000**	**2,344.437 6**

Mitigated Construction Off-Site

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

3.8 Site Preparation Phase B (utilities) - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0569	0.0000	1.0569	0.5809	0.0000	0.5809	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2240	2.3275	1.6760	2.9500e-003		0.1154	0.1154		0.1062	0.1062	0.0000	259.5678	259.5678	0.0840	0.0000	261.6666
Total	**0.2240**	**2.3275**	**1.6760**	**2.9500e-003**	**1.0569**	**0.1154**	**1.1723**	**0.5809**	**0.1062**	**0.6871**	**0.0000**	**259.5678**	**259.5678**	**0.0840**	**0.0000**	**261.6666**

Unmitigated Construction Off-Site

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

3.8 Site Preparation Phase B (utilities) - 2022

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					0.4122	0.0000	0.4122	0.2266	0.0000	0.2266	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0723	1.5212	1.8912	2.9500e-003		0.0838	0.0838		0.0838	0.0838	0.0000	259.5675	259.5675	0.0840	0.0000	261.6662
Total	**0.0723**	**1.5212**	**1.8912**	**2.9500e-003**	**0.4122**	**0.0838**	**0.4960**	**0.2266**	**0.0838**	**0.3104**	**0.0000**	**259.5675**	**259.5675**	**0.0840**	**0.0000**	**261.6662**

Mitigated Construction Off-Site

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

3.9 Architectural Coating Stadium (Phase A) - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.4883					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0892	0.6141	0.7907	1.3000e-003		0.0356	0.0356		0.0356	0.0356	0.0000	111.3219	111.3219	7.2500e-003	0.0000	111.5031
Total	**4.5774**	**0.6141**	**0.7907**	**1.3000e-003**		**0.0356**	**0.0356**		**0.0356**	**0.0356**	**0.0000**	**111.3219**	**111.3219**	**7.2500e-003**	**0.0000**	**111.5031**

Unmitigated Construction Off-Site

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

3.9 Architectural Coating Stadium (Phase A) - 2022

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	4.4883					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0259	0.5916	0.7989	1.3000e-003		0.0415	0.0415		0.0415	0.0415	0.0000	111.3217	111.3217	7.2500e-003	0.0000	111.5029
Total	**4.5142**	**0.5916**	**0.7989**	**1.3000e-003**		**0.0415**	**0.0415**		**0.0415**	**0.0415**	**0.0000**	**111.3217**	**111.3217**	**7.2500e-003**	**0.0000**	**111.5029**

Mitigated Construction Off-Site

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

3.10 Demolition of SDCCU (Phase B) - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3291	0.0000	2.3291	0.3527	0.0000	0.3527	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.9218	9.6661	4.8212	0.0151		0.2859	0.2859		0.2786	0.2786	0.0000	1,480.318 2	1,480.318 2	0.1387	0.0000	1,483.785 2
Total	**0.9218**	**9.6661**	**4.8212**	**0.0151**	**2.3291**	**0.2859**	**2.6150**	**0.3527**	**0.2786**	**0.6313**	**0.0000**	**1,480.318 2**	**1,480.318 2**	**0.1387**	**0.0000**	**1,483.785 2**

Unmitigated Construction Off-Site

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

3.10 Demolition of SDCCU (Phase B) - 2022

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					0.9084	0.0000	0.9084	0.1376	0.0000	0.1376	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3559	6.9999	8.3364	0.0151		0.2972	0.2972		0.2972	0.2972	0.0000	1,480.3165	1,480.3165	0.1387	0.0000	1,483.7835
Total	**0.3559**	**6.9999**	**8.3364**	**0.0151**	**0.9084**	**0.2972**	**1.2055**	**0.1376**	**0.2972**	**0.4347**	**0.0000**	**1,480.3165**	**1,480.3165**	**0.1387**	**0.0000**	**1,483.7835**

Mitigated Construction Off-Site

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

3.11 Grading Phase B (Rough Residential Pad & Initial River Park) - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.7769	0.0000	0.7769	0.3831	0.0000	0.3831	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4234	4.5671	3.3317	7.2300e-003		0.1902	0.1902		0.1750	0.1750	0.0000	635.3302	635.3302	0.2055	0.0000	640.4672
Total	**0.4234**	**4.5671**	**3.3317**	**7.2300e-003**	**0.7769**	**0.1902**	**0.9671**	**0.3831**	**0.1750**	**0.5581**	**0.0000**	**635.3302**	**635.3302**	**0.2055**	**0.0000**	**640.4672**

Unmitigated Construction Off-Site

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

3.11 Grading Phase B (Rough Residential Pad & Initial River Park) - 2022

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					0.3030	0.0000	0.3030	0.1494	0.0000	0.1494	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1774	3.4902	4.2631	7.2300e-003		0.1507	0.1507		0.1507	0.1507	0.0000	635.3294	635.3294	0.2055	0.0000	640.4664
Total	**0.1774**	**3.4902**	**4.2631**	**7.2300e-003**	**0.3030**	**0.1507**	**0.4536**	**0.1494**	**0.1507**	**0.3001**	**0.0000**	**635.3294**	**635.3294**	**0.2055**	**0.0000**	**640.4664**

Mitigated Construction Off-Site

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

3.12 Finish Phase B (Finish Residential Pad and River Park) - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.5835	0.0000	2.5835	1.4201	0.0000	1.4201	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.4533	4.7309	2.8168	5.4400e-003		0.2306	0.2306		0.2122	0.2122	0.0000	478.1833	478.1833	0.1547	0.0000	482.0496
Total	**0.4533**	**4.7309**	**2.8168**	**5.4400e-003**	**2.5835**	**0.2306**	**2.8141**	**1.4201**	**0.2122**	**1.6322**	**0.0000**	**478.1833**	**478.1833**	**0.1547**	**0.0000**	**482.0496**

Unmitigated Construction Off-Site

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

3.12 Finish Phase B (Finish Residential Pad and River Park) - 2022

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					1.0076	0.0000	1.0076	0.5538	0.0000	0.5538	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1332	2.7264	3.2833	5.4400e-003		0.1353	0.1353		0.1353	0.1353	0.0000	478.1827	478.1827	0.1547	0.0000	482.0491
Total	**0.1332**	**2.7264**	**3.2833**	**5.4400e-003**	**1.0076**	**0.1353**	**1.1429**	**0.5538**	**0.1353**	**0.6891**	**0.0000**	**478.1827**	**478.1827**	**0.1547**	**0.0000**	**482.0491**

Mitigated Construction Off-Site

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

3.12 Finish Phase B (Finish Residential Pad and River Park) - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.6972	0.0000	4.6972	2.5820	0.0000	2.5820	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.6915	7.1563	4.7435	9.9000e-003		0.3292	0.3292		0.3028	0.3028	0.0000	869.7181	869.7181	0.2813	0.0000	876.7502
Total	**0.6915**	**7.1563**	**4.7435**	**9.9000e-003**	**4.6972**	**0.3292**	**5.0264**	**2.5820**	**0.3028**	**2.8848**	**0.0000**	**869.7181**	**869.7181**	**0.2813**	**0.0000**	**876.7502**

Unmitigated Construction Off-Site

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

3.12 Finish Phase B (Finish Residential Pad and River Park) - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.8319	0.0000	1.8319	1.0070	0.0000	1.0070	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2421	4.9571	5.9696	9.9000e-003		0.2460	0.2460		0.2460	0.2460	0.0000	869.7171	869.7171	0.2813	0.0000	876.7492
Total	**0.2421**	**4.9571**	**5.9696**	**9.9000e-003**	**1.8319**	**0.2460**	**2.0779**	**1.0070**	**0.2460**	**1.2530**	**0.0000**	**869.7171**	**869.7171**	**0.2813**	**0.0000**	**876.7492**

Mitigated Construction Off-Site

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

3.13 Grading Phase C - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.1395	0.0000	1.1395	0.5619	0.0000	0.5619	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5542	6.0974	4.0165	9.1000e-003		0.2495	0.2495		0.2295	0.2295	0.0000	799.1933	799.1933	0.2585	0.0000	805.6551
Total	**0.5542**	**6.0974**	**4.0165**	**9.1000e-003**	**1.1395**	**0.2495**	**1.3890**	**0.5619**	**0.2295**	**0.7915**	**0.0000**	**799.1933**	**799.1933**	**0.2585**	**0.0000**	**805.6551**

Unmitigated Construction Off-Site

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

3.13 Grading Phase C - 2022

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					0.4444	0.0000	0.4444	0.2192	0.0000	0.2192	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2231	4.4009	5.3198	9.1000e-003		0.1909	0.1909		0.1909	0.1909	0.0000	799.1923	799.1923	0.2585	0.0000	805.6542
Total	**0.2231**	**4.4009**	**5.3198**	**9.1000e-003**	**0.4444**	**0.1909**	**0.6353**	**0.2192**	**0.1909**	**0.4101**	**0.0000**	**799.1923**	**799.1923**	**0.2585**	**0.0000**	**805.6542**

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	0.00	0.00	0.00		
Apartments Mid Rise	0.00	0.00	0.00		
Apartments Mid Rise	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
Condo/Townhouse High Rise	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Health Club	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
Medical Office Building	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Research & Development	0.00	0.00	0.00		
Supermarket	0.00	0.00	0.00		
User Defined Recreational	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	0.00	0.00	0.00	41.60	18.80	39.60	86	11	3
Apartments Mid Rise	0.00	0.00	0.00	41.60	18.80	39.60	86	11	3
Apartments Mid Rise	0.00	0.00	0.00	41.60	18.80	39.60	86	11	3
City Park	0.00	0.00	0.00	33.00	48.00	19.00	66	28	6
City Park	0.00	0.00	0.00	33.00	48.00	19.00	66	28	6
City Park	0.00	0.00	0.00	33.00	48.00	19.00	66	28	6
Condo/Townhouse High Rise	0.00	0.00	0.00	41.60	18.80	39.60	86	11	3
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
General Office Building	0.00	0.00	0.00	33.00	48.00	19.00	77	19	4
Health Club	0.00	0.00	0.00	16.90	64.10	19.00	52	39	9
Hotel	0.00	0.00	0.00	19.40	61.60	19.00	58	38	4
Medical Office Building	0.00	0.00	0.00	29.60	51.40	19.00	60	30	10
Regional Shopping Center	0.00	0.00	0.00	16.30	64.70	19.00	54	35	11
Research & Development	0.00	0.00	0.00	33.00	48.00	19.00	82	15	3
Supermarket	0.00	0.00	0.00	6.50	74.50	19.00	34	30	36
User Defined Recreational	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments High Rise	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
Apartments Mid Rise	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
City Park	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
Condo/Townhouse High Rise	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
Enclosed Parking with Elevator	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
General Office Building	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
Health Club	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
Hotel	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
Medical Office Building	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
Regional Shopping Center	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
Research & Development	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
Supermarket	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
User Defined Recreational	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Medical Office Building	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Supermarket	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Medical Office Building	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Supermarket	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	0	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000
Health Club	0	0.0000	0.0000	0.0000	0.0000
Hotel	0	0.0000	0.0000	0.0000	0.0000
Medical Office Building	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Research & Development	0	0.0000	0.0000	0.0000	0.0000
Supermarket	0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	0	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000
Health Club	0	0.0000	0.0000	0.0000	0.0000
Hotel	0	0.0000	0.0000	0.0000	0.0000
Medical Office Building	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Research & Development	0	0.0000	0.0000	0.0000	0.0000
Supermarket	0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	41.2646	0.3938	34.1584	1.8100e-003		0.1899	0.1899		0.1899	0.1899	0.0000	56.0329	56.0329	0.0537	0.0000	57.3761
Unmitigated	41.2646	0.3938	34.1584	1.8100e-003		0.1899	0.1899		0.1899	0.1899	0.0000	56.0329	56.0329	0.0537	0.0000	57.3761

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	10.5705					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	29.6652					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0289	0.3938	34.1584	1.8100e-003		0.1899	0.1899		0.1899	0.1899	0.0000	56.0329	56.0329	0.0537	0.0000	57.3761
Total	**41.2646**	**0.3938**	**34.1584**	**1.8100e-003**		**0.1899**	**0.1899**		**0.1899**	**0.1899**	**0.0000**	**56.0329**	**56.0329**	**0.0537**	**0.0000**	**57.3761**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	10.5705					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	29.6652					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0289	0.3938	34.1584	1.8100e-003		0.1899	0.1899		0.1899	0.1899	0.0000	56.0329	56.0329	0.0537	0.0000	57.3761
Total	**41.2646**	**0.3938**	**34.1584**	**1.8100e-003**		**0.1899**	**0.1899**		**0.1899**	**0.1899**	**0.0000**	**56.0329**	**56.0329**	**0.0537**	**0.0000**	**57.3761**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	0 / 0	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	0 / 0	0.0000	0.0000	0.0000	0.0000
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	0 / 0	0.0000	0.0000	0.0000	0.0000
Health Club	0 / 0	0.0000	0.0000	0.0000	0.0000
Hotel	0 / 0	0.0000	0.0000	0.0000	0.0000
Medical Office Building	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0 / 0	0.0000	0.0000	0.0000	0.0000
Research & Development	0 / 0	0.0000	0.0000	0.0000	0.0000
Supermarket	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	0 / 0	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	0 / 0	0.0000	0.0000	0.0000	0.0000
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	0 / 0	0.0000	0.0000	0.0000	0.0000
Health Club	0 / 0	0.0000	0.0000	0.0000	0.0000
Hotel	0 / 0	0.0000	0.0000	0.0000	0.0000
Medical Office Building	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0 / 0	0.0000	0.0000	0.0000	0.0000
Research & Development	0 / 0	0.0000	0.0000	0.0000	0.0000
Supermarket	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	0	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000
Health Club	0	0.0000	0.0000	0.0000	0.0000
Hotel	0	0.0000	0.0000	0.0000	0.0000
Medical Office Building	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Research & Development	0	0.0000	0.0000	0.0000	0.0000
Supermarket	0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	0	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000
Health Club	0	0.0000	0.0000	0.0000	0.0000
Hotel	0	0.0000	0.0000	0.0000	0.0000
Medical Office Building	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Research & Development	0	0.0000	0.0000	0.0000	0.0000
Supermarket	0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX B-2
SDSU PROJECT CONSTRUCTION
(2024 - 2037)

SDSU
San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	1,165.00	1000sqft	5.87	1,165,000.00	0
Medical Office Building	100.00	1000sqft	0.50	100,000.00	0
Research & Development	301.00	1000sqft	1.52	301,000.00	0
Enclosed Parking with Elevator	11,270.00	Space	0.73	4,508,000.00	0
City Park	6.00	Acre	6.00	261,360.00	0
City Park	50.00	Acre	50.00	2,178,000.00	0
City Park	27.60	Acre	27.60	1,202,256.00	0
Health Club	25.00	1000sqft	0.13	25,000.00	0
Hotel	400.00	Room	2.92	580,800.00	0
Apartments High Rise	2,220.00	Dwelling Unit	7.86	2,220,000.00	6349
Apartments Mid Rise	2,010.00	Dwelling Unit	11.60	2,010,000.00	5749
Apartments Mid Rise	300.00	Dwelling Unit	1.73	300,000.00	858
Condo/Townhouse High Rise	70.00	Dwelling Unit	0.24	70,000.00	200
Regional Shopping Center	83.00	1000sqft	0.42	83,000.00	0
Supermarket	12.00	1000sqft	0.06	12,000.00	0

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.6 **Precipitation Freq (Days)** 40

Climate Zone 13 **Operational Year** 2035

Utility Company San Diego Gas & Electric

CO2 Intensity (lb/MWhr)	362.86	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - 60% RPS

Land Use - Project-specific land use.

Construction Phase - Construction schedule based on project-specific information.

Off-road Equipment -

Trips and VMT - Worker, Vendor, Hauling trips based on defaults for each phase.

Demolition -

Grading -

Architectural Coating - VOC in accordance with SDAPCD Rule 67.0.1. Architectural Coating area information based on individual defaults.

Vehicle Trips - Construction emissions only.

Woodstoves - Construction emissions only.

Area Coating - Construction emissions only.

Energy Use - Construction emissions only.

Water And Wastewater - Construction emissions only.

Solid Waste - Construction emissions only.

Construction Off-road Equipment Mitigation - Watering of construction site.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	1,133,400.00	61,650.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	1,133,400.00	125,320.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	1,133,400.00	61,650.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	3,400,200.00	184,950.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	3,400,200.00	375,961.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	3,400,200.00	184,950.00

tblArchitecturalCoating	ConstArea_Parking	270,480.00	0.00
tblArchitecturalCoating	ConstArea_Parking	270,480.00	1,908.00
tblArchitecturalCoating	ConstArea_Parking	270,480.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	3,105,000.00	77,085.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	3,105,000.00	77,085.00
tblArchitecturalCoating	ConstArea_Residential_Exterior	3,105,000.00	77,085.00
tblArchitecturalCoating	ConstArea_Residential_Interior	9,315,000.00	231,255.00
tblArchitecturalCoating	ConstArea_Residential_Interior	9,315,000.00	231,255.00
tblArchitecturalCoating	ConstArea_Residential_Interior	9,315,000.00	231,255.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	150.00
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_Parking	270480	0
tblConstructionPhase	NumDays	220.00	228.00
tblConstructionPhase	NumDays	220.00	227.00
tblConstructionPhase	NumDays	220.00	227.00
tblConstructionPhase	NumDays	3,100.00	849.00

tblConstructionPhase	NumDays	3,100.00	848.00
tblConstructionPhase	NumDays	3,100.00	848.00
tblConstructionPhase	NumDays	220.00	228.00
tblConstructionPhase	NumDays	220.00	227.00
tblConstructionPhase	NumDays	220.00	227.00
tblConstructionPhase	NumDays	120.00	130.00
tblConstructionPhase	NumDays	120.00	137.00
tblEnergyUse	LightingElect	741.44	0.00
tblEnergyUse	LightingElect	741.44	0.00
tblEnergyUse	LightingElect	1,001.10	0.00
tblEnergyUse	LightingElect	1.75	0.00
tblEnergyUse	LightingElect	3.81	0.00
tblEnergyUse	LightingElect	2.83	0.00
tblEnergyUse	LightingElect	4.50	0.00
tblEnergyUse	LightingElect	3.81	0.00
tblEnergyUse	LightingElect	6.22	0.00
tblEnergyUse	LightingElect	2.83	0.00
tblEnergyUse	LightingElect	6.94	0.00
tblEnergyUse	NT24E	3,054.10	0.00
tblEnergyUse	NT24E	3,054.10	0.00
tblEnergyUse	NT24E	3,054.10	0.00
tblEnergyUse	NT24E	0.19	0.00
tblEnergyUse	NT24E	4.97	0.00
tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24E	3.67	0.00
tblEnergyUse	NT24E	4.97	0.00
tblEnergyUse	NT24E	3.16	0.00

tblEnergyUse	NT24E	4.27	0.00
tblEnergyUse	NT24E	25.54	0.00
tblEnergyUse	NT24NG	4,180.00	0.00
tblEnergyUse	NT24NG	4,180.00	0.00
tblEnergyUse	NT24NG	4,180.00	0.00
tblEnergyUse	NT24NG	4.20	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	NT24NG	11.10	0.00
tblEnergyUse	NT24NG	4.20	0.00
tblEnergyUse	NT24NG	1.09	0.00
tblEnergyUse	NT24NG	7.25	0.00
tblEnergyUse	NT24NG	15.42	0.00
tblEnergyUse	T24E	209.39	0.00
tblEnergyUse	T24E	209.39	0.00
tblEnergyUse	T24E	209.39	0.00
tblEnergyUse	T24E	3.92	0.00
tblEnergyUse	T24E	4.66	0.00
tblEnergyUse	T24E	1.21	0.00
tblEnergyUse	T24E	4.78	0.00
tblEnergyUse	T24E	4.66	0.00
tblEnergyUse	T24E	3.18	0.00
tblEnergyUse	T24E	1.21	0.00
tblEnergyUse	T24E	3.25	0.00
tblEnergyUse	T24NG	3,248.74	0.00
tblEnergyUse	T24NG	3,248.74	0.00
tblEnergyUse	T24NG	3,248.74	0.00
tblEnergyUse	T24NG	15.99	0.00

tblEnergyUse	T24NG	4.31	0.00
tblEnergyUse	T24NG	47.27	0.00
tblEnergyUse	T24NG	15.99	0.00
tblEnergyUse	T24NG	1.14	0.00
tblEnergyUse	T24NG	4.31	0.00
tblEnergyUse	T24NG	9.70	0.00
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceDayYear	82.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	1,221.00	0.00
tblFireplaces	NumberGas	1,270.50	0.00
tblFireplaces	NumberGas	38.50	0.00
tblFireplaces	NumberNoFireplace	222.00	0.00
tblFireplaces	NumberNoFireplace	231.00	0.00
tblFireplaces	NumberNoFireplace	7.00	0.00
tblFireplaces	NumberWood	777.00	0.00
tblFireplaces	NumberWood	808.50	0.00
tblFireplaces	NumberWood	24.50	0.00
tblLandUse	LotAcreage	26.74	5.87
tblLandUse	LotAcreage	2.30	0.50
tblLandUse	LotAcreage	6.91	1.52

tblLandUse	LotAcreage	101.43	0.73
tblLandUse	LotAcreage	0.57	0.13
tblLandUse	LotAcreage	13.33	2.92
tblLandUse	LotAcreage	35.81	7.86
tblLandUse	LotAcreage	52.89	11.60
tblLandUse	LotAcreage	7.89	1.73
tblLandUse	LotAcreage	1.09	0.24
tblLandUse	LotAcreage	1.91	0.42
tblLandUse	LotAcreage	0.28	0.06
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	8.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	8.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	6.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	8.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	6.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	6.00

tblProjectCharacteristics	CO2IntensityFactor	720.49	362.86
tblSolidWaste	SolidWasteGenerationRate	1,021.20	0.00
tblSolidWaste	SolidWasteGenerationRate	1,062.60	0.00
tblSolidWaste	SolidWasteGenerationRate	7.19	0.00
tblSolidWaste	SolidWasteGenerationRate	32.20	0.00
tblSolidWaste	SolidWasteGenerationRate	1,083.45	0.00
tblSolidWaste	SolidWasteGenerationRate	142.50	0.00
tblSolidWaste	SolidWasteGenerationRate	219.00	0.00
tblSolidWaste	SolidWasteGenerationRate	1,080.00	0.00
tblSolidWaste	SolidWasteGenerationRate	87.15	0.00
tblSolidWaste	SolidWasteGenerationRate	22.87	0.00
tblSolidWaste	SolidWasteGenerationRate	67.68	0.00
tblTripsAndVMT	VendorTripNumber	0.00	8.00
tblTripsAndVMT	VendorTripNumber	2,199.00	58.00
tblTripsAndVMT	VendorTripNumber	2,199.00	32.00
tblTripsAndVMT	VendorTripNumber	2,199.00	32.00
tblTripsAndVMT	WorkerTripNumber	35.00	92.00
tblTripsAndVMT	WorkerTripNumber	1,504.00	24.00
tblTripsAndVMT	WorkerTripNumber	7,521.00	189.00
tblTripsAndVMT	WorkerTripNumber	7,521.00	122.00
tblTripsAndVMT	WorkerTripNumber	1,504.00	38.00
tblTripsAndVMT	WorkerTripNumber	7,521.00	122.00
tblTripsAndVMT	WorkerTripNumber	1,504.00	24.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TL	7.30	0.00

tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CC_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
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tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CNW_TL	7.30	0.00
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tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	HO_TL	7.50	0.00
tblVehicleTrips	HO_TL	7.50	0.00
tblVehicleTrips	HO_TL	7.50	0.00
tblVehicleTrips	HS_TL	7.30	0.00

tblVehicleTrips	HS_TL	7.30	0.00
tblVehicleTrips	HS_TL	7.30	0.00
tblVehicleTrips	HW_TL	10.80	0.00
tblVehicleTrips	HW_TL	10.80	0.00
tblVehicleTrips	HW_TL	10.80	0.00
tblVehicleTrips	ST_TR	4.98	0.00
tblVehicleTrips	ST_TR	6.39	0.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	4.31	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	20.87	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	ST_TR	8.96	0.00
tblVehicleTrips	ST_TR	49.97	0.00
tblVehicleTrips	ST_TR	1.90	0.00
tblVehicleTrips	ST_TR	177.59	0.00
tblVehicleTrips	SU_TR	3.65	0.00
tblVehicleTrips	SU_TR	5.86	0.00
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	3.43	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	26.73	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	SU_TR	1.55	0.00
tblVehicleTrips	SU_TR	25.24	0.00
tblVehicleTrips	SU_TR	1.11	0.00
tblVehicleTrips	SU_TR	166.44	0.00

tblVehicleTrips	WD_TR	4.20	0.00
tblVehicleTrips	WD_TR	6.65	0.00
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	4.18	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	32.93	0.00
tblVehicleTrips	WD_TR	8.17	0.00
tblVehicleTrips	WD_TR	36.13	0.00
tblVehicleTrips	WD_TR	42.70	0.00
tblVehicleTrips	WD_TR	8.11	0.00
tblVehicleTrips	WD_TR	102.24	0.00
tblWater	IndoorWaterUseRate	144,641,936.88	0.00
tblWater	IndoorWaterUseRate	150,505,799.19	0.00
tblWater	IndoorWaterUseRate	4,560,781.79	0.00
tblWater	IndoorWaterUseRate	207,059,816.41	0.00
tblWater	IndoorWaterUseRate	1,478,578.60	0.00
tblWater	IndoorWaterUseRate	10,146,708.00	0.00
tblWater	IndoorWaterUseRate	12,548,053.76	0.00
tblWater	IndoorWaterUseRate	6,148,019.28	0.00
tblWater	IndoorWaterUseRate	147,999,878.11	0.00
tblWater	IndoorWaterUseRate	1,479,218.58	0.00
tblWater	OutdoorWaterUseRate	91,187,308.03	0.00
tblWater	OutdoorWaterUseRate	94,884,090.79	0.00
tblWater	OutdoorWaterUseRate	99,607,840.83	0.00
tblWater	OutdoorWaterUseRate	2,875,275.48	0.00
tblWater	OutdoorWaterUseRate	126,907,629.41	0.00
tblWater	OutdoorWaterUseRate	906,225.59	0.00

tblWater	OutdoorWaterUseRate	1,127,412.00	0.00
tblWater	OutdoorWaterUseRate	2,390,105.48	0.00
tblWater	OutdoorWaterUseRate	3,768,140.85	0.00
tblWater	OutdoorWaterUseRate	45,749.03	0.00
tblWoodstoves	NumberCatalytic	111.00	0.00
tblWoodstoves	NumberCatalytic	115.50	0.00
tblWoodstoves	NumberCatalytic	3.50	0.00
tblWoodstoves	NumberNoncatalytic	111.00	0.00
tblWoodstoves	NumberNoncatalytic	115.50	0.00
tblWoodstoves	NumberNoncatalytic	3.50	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveDayYear	82.00	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.7360	6.7231	6.0242	0.0129	2.5255	0.2856	2.8110	1.3386	0.2660	1.6046	0.0000	1,128.383 3	1,128.383 3	0.2545	0.0000	1,134.746 1
2025	0.8526	7.4761	8.0669	0.0171	1.4499	0.2874	1.7373	0.7250	0.2700	0.9950	0.0000	1,492.412 7	1,492.412 7	0.2910	0.0000	1,499.686 4
2026	0.6891	5.8607	6.8777	0.0145	0.2936	0.2183	0.5118	0.0920	0.2064	0.2984	0.0000	1,266.564 2	1,266.564 2	0.2217	0.0000	1,272.106 3
2027	0.5392	4.6077	5.5738	0.0115	0.1893	0.1748	0.3641	0.0512	0.1650	0.2162	0.0000	1,004.361 9	1,004.361 9	0.1848	0.0000	1,008.981 6
2028	1.7320	4.4966	5.7568	0.0110	0.1019	0.1847	0.2865	0.0274	0.1750	0.2024	0.0000	951.2371	951.2371	0.1834	0.0000	955.8221
2029	2.4898	7.4820	8.8942	0.0177	0.1752	0.2963	0.4715	0.0472	0.2822	0.3294	0.0000	1,530.252 9	1,530.252 9	0.2612	0.0000	1,536.782 4
2030	0.7160	4.4774	8.1955	0.0185	0.1554	0.0823	0.2377	0.0419	0.0822	0.1242	0.0000	1,583.060 9	1,583.060 9	0.0628	0.0000	1,584.630 7
2031	0.6116	3.7489	7.0063	0.0154	0.1232	0.0795	0.2027	0.0332	0.0794	0.1127	0.0000	1,319.841 2	1,319.841 2	0.0532	0.0000	1,321.171 2
2032	1.2009	1.9698	3.9607	8.7100e-003	0.1043	0.0633	0.1675	0.0280	0.0632	0.0913	0.0000	755.8665	755.8665	0.0322	0.0000	756.6723
2033	1.4291	1.8544	3.3275	9.1500e-003	0.1672	0.0350	0.2022	0.0451	0.0350	0.0800	0.0000	799.9937	799.9937	0.0319	0.0000	800.7907
2034	0.2947	1.6293	2.8363	8.2900e-003	0.1548	0.0297	0.1845	0.0418	0.0297	0.0714	0.0000	725.3457	725.3457	0.0290	0.0000	726.0707
2035	0.2435	1.2231	2.6471	7.1800e-003	0.1206	0.0204	0.1410	0.0325	0.0203	0.0529	0.0000	626.5799	626.5799	0.0236	0.0000	627.1691
2036	0.9578	0.5498	1.6716	3.0000e-003	0.0193	0.0173	0.0366	5.1400e-003	0.0173	0.0224	0.0000	258.2603	258.2603	9.6300e-003	0.0000	258.5010
2037	1.1243	0.1970	0.4803	8.5000e-004	0.0124	2.6000e-003	0.0150	3.3000e-003	2.5900e-003	5.8900e-003	0.0000	73.1274	73.1274	2.5600e-003	0.0000	73.1914
Maximum	**2.4898**	**7.4820**	**8.8942**	**0.0185**	**2.5255**	**0.2963**	**2.8110**	**1.3386**	**0.2822**	**1.6046**	**0.0000**	**1,583.060 9**	**1,583.060 9**	**0.2910**	**0.0000**	**1,584.630 7**

2.1 Overall Construction

Mitigated Construction

SDSU - San Diego County, Annual

	ROG	NOx	CO	SO2	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					
2024	0.7360	6.7231	6.0242	0.0129	1.0928	0.2856	1.3784	0.5511	0.2660	0.8171	0.0000	1,128.3822	1,128.3822	0.2545	0.0000	1,134.7450
2025	0.8526	7.4761	8.0669	0.0171	0.7226	0.2874	1.0100	0.3252	0.2700	0.5952	0.0000	1,492.4113	1,492.4113	0.2910	0.0000	1,499.6851
2026	0.6891	5.8607	6.8777	0.0145	0.2660	0.2183	0.4843	0.0768	0.2064	0.2832	0.0000	1,266.5631	1,266.5631	0.2217	0.0000	1,272.1052
2027	0.5392	4.6077	5.5738	0.0115	0.1893	0.1748	0.3641	0.0512	0.1650	0.2162	0.0000	1,004.3610	1,004.3610	0.1848	0.0000	1,008.9807
2028	1.7320	4.4966	5.7568	0.0110	0.1019	0.1847	0.2865	0.0274	0.1750	0.2024	0.0000	951.2361	951.2361	0.1834	0.0000	955.8211
2029	2.4898	7.4820	8.8942	0.0177	0.1752	0.2963	0.4714	0.0472	0.2822	0.3294	0.0000	1,530.2513	1,530.2513	0.2612	0.0000	1,536.7808
2030	0.7160	4.4774	8.1955	0.0185	0.1554	0.0823	0.2377	0.0419	0.0822	0.1242	0.0000	1,583.0593	1,583.0593	0.0628	0.0000	1,584.6290
2031	0.6116	3.7489	7.0063	0.0154	0.1232	0.0795	0.2027	0.0332	0.0794	0.1127	0.0000	1,319.8398	1,319.8398	0.0532	0.0000	1,321.1698
2032	1.2009	1.9698	3.9607	8.7100e-003	0.1043	0.0633	0.1675	0.0280	0.0632	0.0913	0.0000	755.8657	755.8657	0.0322	0.0000	756.6715
2033	1.4291	1.8544	3.3275	9.1500e-003	0.1672	0.0350	0.2022	0.0451	0.0350	0.0800	0.0000	799.9930	799.9930	0.0319	0.0000	800.7900
2034	0.2947	1.6293	2.8363	8.2900e-003	0.1548	0.0297	0.1845	0.0418	0.0297	0.0714	0.0000	725.3451	725.3451	0.0290	0.0000	726.0700
2035	0.2435	1.2231	2.6471	7.1800e-003	0.1206	0.0204	0.1410	0.0325	0.0203	0.0529	0.0000	626.5793	626.5793	0.0236	0.0000	627.1686
2036	0.9578	0.5498	1.6716	3.0000e-003	0.0193	0.0173	0.0366	5.1400e-003	0.0173	0.0224	0.0000	258.2600	258.2600	9.6300e-003	0.0000	258.5007
2037	1.1243	0.1970	0.4803	8.5000e-004	0.0124	2.6000e-003	0.0150	3.3000e-003	2.5900e-003	5.8900e-003	0.0000	73.1273	73.1273	2.5600e-003	0.0000	73.1914
Maximum	**2.4898**	**7.4820**	**8.8942**	**0.0185**	**1.0928**	**0.2963**	**1.3784**	**0.5511**	**0.2822**	**0.8171**	**0.0000**	**1,583.0593**	**1,583.0593**	**0.2910**	**0.0000**	**1,584.6290**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**39.12**	**0.00**	**29.68**	**47.86**	**0.00**	**28.59**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
16	11-3-2023	2-2-2024	0.7163	0.7163
17	2-3-2024	5-2-2024	1.9528	1.9528
18	5-3-2024	8-2-2024	1.9056	1.9056
19	8-3-2024	11-2-2024	1.7469	1.7469
20	11-3-2024	2-2-2025	1.7087	1.7087
21	2-3-2025	5-2-2025	1.5819	1.5819
22	5-3-2025	8-2-2025	1.9606	1.9606
23	8-3-2025	11-2-2025	2.5474	2.5474
24	11-3-2025	2-2-2026	2.2903	2.2903
25	2-3-2026	5-2-2026	1.5784	1.5784
26	5-3-2026	8-2-2026	1.6296	1.6296
27	8-3-2026	11-2-2026	1.6307	1.6307
28	11-3-2026	2-2-2027	1.6315	1.6315
29	2-3-2027	5-2-2027	1.5751	1.5751
30	5-3-2027	8-2-2027	1.6263	1.6263
31	8-3-2027	11-2-2027	1.1556	1.1556
32	11-3-2027	2-2-2028	0.3142	0.3142
33	2-3-2028	5-2-2028	0.3072	0.3072
34	5-3-2028	8-2-2028	1.0368	1.0368
35	8-3-2028	11-2-2028	2.9015	2.9015
36	11-3-2028	2-2-2029	3.0129	3.0129
37	2-3-2029	5-2-2029	2.9125	2.9125
38	5-3-2029	8-2-2029	2.6521	2.6521
39	8-3-2029	11-2-2029	2.0144	2.0144
40	11-3-2029	2-2-2030	1.7618	1.7618
41	2-3-2030	5-2-2030	1.2650	1.2650

42	**5-3-2030**	**8-2-2030**	1.3066	1.3066
43	**8-3-2030**	**11-2-2030**	1.3072	1.3072
44	**11-3-2030**	**2-2-2031**	1.3076	1.3076
45	**2-3-2031**	**5-2-2031**	1.2634	1.2634
46	**5-3-2031**	**8-2-2031**	1.3050	1.3050
47	**8-3-2031**	**11-2-2031**	1.0148	1.0148
48	**11-3-2031**	**2-2-2032**	0.4707	0.4707
49	**2-3-2032**	**5-2-2032**	0.4602	0.4602
50	**5-3-2032**	**8-2-2032**	0.6451	0.6451
51	**8-3-2032**	**11-2-2032**	1.1326	1.1326
52	**11-3-2032**	**2-2-2033**	1.1793	1.1793
53	**2-3-2033**	**5-2-2033**	1.1394	1.1394
54	**5-3-2033**	**8-2-2033**	0.9291	0.9291
55	**8-3-2033**	**11-2-2033**	0.4869	0.4869
56	**11-3-2033**	**2-2-2034**	0.4874	0.4874
57	**2-3-2034**	**5-2-2034**	0.4703	0.4703
58	**5-3-2034**	**8-2-2034**	0.4854	0.4854
59	**8-3-2034**	**11-2-2034**	0.4858	0.4858
60	**11-3-2034**	**2-2-2035**	0.4649	0.4649
61	**2-3-2035**	**5-2-2035**	0.4118	0.4118
62	**5-3-2035**	**8-2-2035**	0.4249	0.4249
63	**8-3-2035**	**11-2-2035**	0.3464	0.3464
64	**11-3-2035**	**2-2-2036**	0.1991	0.1991
65	**2-3-2036**	**5-2-2036**	0.1947	0.1947
66	**5-3-2036**	**8-2-2036**	0.1989	0.1989
67	**8-3-2036**	**11-2-2036**	0.6113	0.6113
68	**11-3-2036**	**2-2-2037**	0.6733	0.6733

69	**2-3-2037**	**5-2-2037**	0.6512	0.6512
70	**5-3-2037**	**8-2-2037**	0.4316	0.4316
		Highest	3.0129	3.0129

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	37.9953	0.3938	34.1583	1.8100e-003		0.1899	0.1899		0.1899	0.1899	0.0000	56.0326	56.0326	0.0537	0.0000	57.3759
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**37.9953**	**0.3938**	**34.1583**	**1.8100e-003**	**0.0000**	**0.1899**	**0.1899**	**0.0000**	**0.1899**	**0.1899**	**0.0000**	**56.0326**	**56.0326**	**0.0537**	**0.0000**	**57.3759**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	37.9953	0.3938	34.1583	1.8100e-003		0.1899	0.1899		0.1899	0.1899	0.0000	56.0326	56.0326	0.0537	0.0000	57.3759
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**37.9953**	**0.3938**	**34.1583**	**1.8100e-003**	**0.0000**	**0.1899**	**0.1899**	**0.0000**	**0.1899**	**0.1899**	**0.0000**	**56.0326**	**56.0326**	**0.0537**	**0.0000**	**57.3759**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Finish Phase B (Finish Residential Pad and River Park)	Site Preparation	1/1/2024	6/30/2024	5	130	
2	Building Construction Phase C1	Building Construction	7/1/2024	9/30/2027	5	849	
3	Site Preparation - Off-Site Improvements	Site Preparation	7/1/2025	1/7/2026	5	137	
4	Paving Phase C1	Paving	10/1/2027	8/14/2028	5	227	
5	Building Construction Phase C2	Building Construction	7/1/2028	10/1/2031	5	848	
6	Architectural Coating Phase C1	Architectural Coating	8/17/2028	6/30/2029	5	227	
7	Paving Phase C2	Paving	10/2/2031	8/15/2032	5	227	
8	Building Construction Phase C3	Building Construction	7/1/2032	10/1/2035	5	848	
9	Architectural Coating Phase C2	Architectural Coating	8/18/2032	6/30/2033	5	227	
10	Paving Phase C3	Paving	10/2/2035	8/14/2036	5	228	
11	Architectural Coating Phase C3	Architectural Coating	8/15/2036	6/30/2037	5	228	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.73

Residential Indoor: 231,255; Residential Outdoor: 77,085; Non-Residential Indoor: 375,961; Non-Residential Outdoor: 125,320; Striped Parking Area: 1,908 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Finish Phase B (Finish Residential Pad and River Park)	Rubber Tired Dozers	6	8.00	247	0.40
Finish Phase B (Finish Residential Pad and River Park)	Tractors/Loaders/Backhoes	8	8.00	97	0.37
Building Construction Phase C1	Cranes	4	7.00	231	0.29
Building Construction Phase C1	Forklifts	8	8.00	89	0.20
Building Construction Phase C1	Generator Sets	3	8.00	84	0.74

Building Construction Phase C1	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction Phase C1	Welders	6	8.00	46	0.45
Site Preparation - Off-Site Improvements	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation - Off-Site Improvements	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Paving Phase C1	Pavers	2	8.00	130	0.42
Paving Phase C1	Paving Equipment	2	8.00	132	0.36
Paving Phase C1	Rollers	2	8.00	80	0.38
Architectural Coating Phase C1	Air Compressors	4	6.00	78	0.48
Building Construction Phase C2	Cranes	6	7.00	231	0.29
Building Construction Phase C2	Forklifts	8	8.00	89	0.20
Building Construction Phase C2	Generator Sets	6	8.00	84	0.74
Building Construction Phase C2	Tractors/Loaders/Backhoes	6	7.00	97	0.37
Building Construction Phase C2	Welders	6	8.00	46	0.45
Paving Phase C2	Pavers	4	8.00	130	0.42
Paving Phase C2	Paving Equipment	2	8.00	132	0.36
Paving Phase C2	Rollers	4	8.00	80	0.38
Architectural Coating Phase C2	Air Compressors	4	6.00	78	0.48
Building Construction Phase C3	Cranes	4	7.00	231	0.29
Building Construction Phase C3	Forklifts	3	8.00	89	0.20
Building Construction Phase C3	Generator Sets	1	8.00	84	0.74
Building Construction Phase C3	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction Phase C3	Welders	1	8.00	46	0.45
Paving Phase C3	Pavers	2	8.00	130	0.42
Paving Phase C3	Paving Equipment	2	8.00	132	0.36
Paving Phase C3	Rollers	2	8.00	80	0.38
Architectural Coating Phase C3	Air Compressors	4	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
Finish Phase B (Finish Residential Pad and P	14	92.00	8.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction Phase C1	27	189.00	58.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation - Off-Site Improvements	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving Phase C1	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating Phase C1	4	38.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction Phase C2	32	122.00	32.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving Phase C2	10	25.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating Phase C2	4	24.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction Phase C3	12	122.00	32.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving Phase C3	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating Phase C3	4	24.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Finish Phase B (Finish Residential Pad and River Park) - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3486	0.0000	2.3486	1.2910	0.0000	1.2910	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3459	3.5329	2.3836	4.9500e-003		0.1598	0.1598		0.1470	0.1470	0.0000	434.9418	434.9418	0.1407	0.0000	438.4586
Total	**0.3459**	**3.5329**	**2.3836**	**4.9500e-003**	**2.3486**	**0.1598**	**2.5084**	**1.2910**	**0.1470**	**1.4380**	**0.0000**	**434.9418**	**434.9418**	**0.1407**	**0.0000**	**438.4586**

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	1.1100e-003	0.0391	0.0119	1.3000e-004	3.4500e-003	5.0000e-005	3.5000e-003	1.0000e-003	4.0000e-005	1.0400e-003	0.0000	13.0437	13.0437	8.8000e-004	0.0000	13.0658
Worker	0.0177	0.0113	0.1201	4.1000e-004	0.0480	3.2000e-004	0.0483	0.0127	2.9000e-004	0.0130	0.0000	37.2861	37.2861	9.2000e-004	0.0000	37.3092
Total	**0.0188**	**0.0504**	**0.1320**	**5.4000e-004**	**0.0514**	**3.7000e-004**	**0.0518**	**0.0137**	**3.3000e-004**	**0.0141**	**0.0000**	**50.3298**	**50.3298**	**1.8000e-003**	**0.0000**	**50.3749**

3.2 Finish Phase B (Finish Residential Pad and River Park) - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.9160	0.0000	0.9160	0.5035	0.0000	0.5035	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3459	3.5329	2.3836	4.9500e-003		0.1598	0.1598		0.1470	0.1470	0.0000	434.9413	434.9413	0.1407	0.0000	438.4580
Total	**0.3459**	**3.5329**	**2.3836**	**4.9500e-003**	**0.9160**	**0.1598**	**1.0758**	**0.5035**	**0.1470**	**0.6505**	**0.0000**	**434.9413**	**434.9413**	**0.1407**	**0.0000**	**438.4580**

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	1.1100e-003	0.0391	0.0119	1.3000e-004	3.4500e-003	5.0000e-005	3.5000e-003	1.0000e-003	4.0000e-005	1.0400e-003	0.0000	13.0437	13.0437	8.8000e-004	0.0000	13.0658
Worker	0.0177	0.0113	0.1201	4.1000e-004	0.0480	3.2000e-004	0.0483	0.0127	2.9000e-004	0.0130	0.0000	37.2861	37.2861	9.2000e-004	0.0000	37.3092
Total	**0.0188**	**0.0504**	**0.1320**	**5.4000e-004**	**0.0514**	**3.7000e-004**	**0.0518**	**0.0137**	**3.3000e-004**	**0.0141**	**0.0000**	**50.3298**	**50.3298**	**1.8000e-003**	**0.0000**	**50.3749**

3.3 Building Construction Phase C1 - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3261	2.8284	3.1704	5.5300e-003		0.1244	0.1244		0.1177	0.1177	0.0000	469.3130	469.3130	0.1036	0.0000	471.9035
Total	**0.3261**	**2.8284**	**3.1704**	**5.5300e-003**		**0.1244**	**0.1244**		**0.1177**	**0.1177**	**0.0000**	**469.3130**	**469.3130**	**0.1036**	**0.0000**	**471.9035**

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	8.1900e-003	0.2877	0.0876	9.8000e-004	0.0254	3.4000e-004	0.0258	7.3400e-003	3.3000e-004	7.6600e-003	0.0000	96.0218	96.0218	6.4900e-003	0.0000	96.1840
Worker	0.0370	0.0236	0.2506	8.6000e-004	0.1000	6.7000e-004	0.1007	0.0266	6.1000e-004	0.0272	0.0000	77.7770	77.7770	1.9300e-003	0.0000	77.8251
Total	**0.0452**	**0.3114**	**0.3382**	**1.8400e-003**	**0.1254**	**1.0100e-003**	**0.1265**	**0.0339**	**9.4000e-004**	**0.0349**	**0.0000**	**173.7987**	**173.7987**	**8.4200e-003**	**0.0000**	**174.0092**

3.3 Building Construction Phase C1 - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3261	2.8284	3.1704	5.5300e-003		0.1244	0.1244		0.1177	0.1177	0.0000	469.3124	469.3124	0.1036	0.0000	471.9029
Total	**0.3261**	**2.8284**	**3.1704**	**5.5300e-003**		**0.1244**	**0.1244**		**0.1177**	**0.1177**	**0.0000**	**469.3124**	**469.3124**	**0.1036**	**0.0000**	**471.9029**

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	8.1900e-003	0.2877	0.0876	9.8000e-004	0.0254	3.4000e-004	0.0258	7.3400e-003	3.3000e-004	7.6600e-003	0.0000	96.0218	96.0218	6.4900e-003	0.0000	96.1840
Worker	0.0370	0.0236	0.2506	8.6000e-004	0.1000	6.7000e-004	0.1007	0.0266	6.1000e-004	0.0272	0.0000	77.7770	77.7770	1.9300e-003	0.0000	77.8251
Total	**0.0452**	**0.3114**	**0.3382**	**1.8400e-003**	**0.1254**	**1.0100e-003**	**0.1265**	**0.0339**	**9.4000e-004**	**0.0349**	**0.0000**	**173.7987**	**173.7987**	**8.4200e-003**	**0.0000**	**174.0092**

3.3 Building Construction Phase C1 - 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	0.6005	5.2049	6.2303	0.0110		0.2137	0.2137		0.2021	0.2021	0.0000	928.1472	928.1472	0.2031	0.0000	933.2255
Total	**0.6005**	**5.2049**	**6.2303**	**0.0110**		**0.2137**	**0.2137**		**0.2021**	**0.2021**	**0.0000**	**928.1472**	**928.1472**	**0.2031**	**0.0000**	**933.2255**

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	0.0157	0.5606	0.1697	1.9200e-003	0.0502	6.5000e-004	0.0509	0.0145	6.2000e-004	0.0151	0.0000	188.7062	188.7062	0.0127	0.0000	189.0236
Worker	0.0698	0.0431	0.4625	1.6300e-003	0.1978	1.3000e-003	0.1991	0.0526	1.1900e-003	0.0538	0.0000	147.5693	147.5693	3.5200e-003	0.0000	147.6572
Total	**0.0856**	**0.6037**	**0.6321**	**3.5500e-003**	**0.2480**	**1.9500e-003**	**0.2500**	**0.0671**	**1.8100e-003**	**0.0689**	**0.0000**	**336.2755**	**336.2755**	**0.0162**	**0.0000**	**336.6808**

3.3 Building Construction Phase C1 - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.6005	5.2049	6.2303	0.0110		0.2137	0.2137		0.2021	0.2021	0.0000	928.1461	928.1461	0.2031	0.0000	933.2244
Total	**0.6005**	**5.2049**	**6.2303**	**0.0110**		**0.2137**	**0.2137**		**0.2021**	**0.2021**	**0.0000**	**928.1461**	**928.1461**	**0.2031**	**0.0000**	**933.2244**

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	0.0157	0.5606	0.1697	1.9200e-003	0.0502	6.5000e-004	0.0509	0.0145	6.2000e-004	0.0151	0.0000	188.7062	188.7062	0.0127	0.0000	189.0236
Worker	0.0698	0.0431	0.4625	1.6300e-003	0.1978	1.3000e-003	0.1991	0.0526	1.1900e-003	0.0538	0.0000	147.5693	147.5693	3.5200e-003	0.0000	147.6572
Total	**0.0856**	**0.6037**	**0.6321**	**3.5500e-003**	**0.2480**	**1.9500e-003**	**0.2500**	**0.0671**	**1.8100e-003**	**0.0689**	**0.0000**	**336.2755**	**336.2755**	**0.0162**	**0.0000**	**336.6808**

3.3 Building Construction Phase C1 - 2026

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	0.6005	5.2049	6.2303	0.0110		0.2137	0.2137		0.2021	0.2021	0.0000	928.1472	928.1472	0.2031	0.0000	933.2255
Total	**0.6005**	**5.2049**	**6.2303**	**0.0110**		**0.2137**	**0.2137**		**0.2021**	**0.2021**	**0.0000**	**928.1472**	**928.1472**	**0.2031**	**0.0000**	**933.2255**

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	0.0153	0.5526	0.1672	1.9100e-003	0.0502	6.3000e-004	0.0509	0.0145	6.1000e-004	0.0151	0.0000	187.6260	187.6260	0.0126	0.0000	187.9401
Worker	0.0670	0.0401	0.4346	1.5700e-003	0.1978	1.2600e-003	0.1991	0.0526	1.1600e-003	0.0537	0.0000	142.1649	142.1649	3.2800e-003	0.0000	142.2468
Total	**0.0823**	**0.5927**	**0.6018**	**3.4800e-003**	**0.2480**	**1.8900e-003**	**0.2499**	**0.0671**	**1.7700e-003**	**0.0688**	**0.0000**	**329.7909**	**329.7909**	**0.0158**	**0.0000**	**330.1869**

3.3 Building Construction Phase C1 - 2026

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	0.6005	5.2049	6.2303	0.0110		0.2137	0.2137		0.2021	0.2021	0.0000	928.1461	928.1461	0.2031	0.0000	933.2244
Total	**0.6005**	**5.2049**	**6.2303**	**0.0110**		**0.2137**	**0.2137**		**0.2021**	**0.2021**	**0.0000**	**928.1461**	**928.1461**	**0.2031**	**0.0000**	**933.2244**

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	0.0153	0.5526	0.1672	1.9100e-003	0.0502	6.3000e-004	0.0509	0.0145	6.1000e-004	0.0151	0.0000	187.6260	187.6260	0.0126	0.0000	187.9401
Worker	0.0670	0.0401	0.4346	1.5700e-003	0.1978	1.2600e-003	0.1991	0.0526	1.1600e-003	0.0537	0.0000	142.1649	142.1649	3.2800e-003	0.0000	142.2468
Total	**0.0823**	**0.5927**	**0.6018**	**3.4800e-003**	**0.2480**	**1.8900e-003**	**0.2499**	**0.0671**	**1.7700e-003**	**0.0688**	**0.0000**	**329.7909**	**329.7909**	**0.0158**	**0.0000**	**330.1869**

3.3 Building Construction Phase C1 - 2027

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	0.4487	3.8887	4.6548	8.1800e-003		0.1596	0.1596		0.1510	0.1510	0.0000	693.4433	693.4433	0.1518	0.0000	697.2375
Total	**0.4487**	**3.8887**	**4.6548**	**8.1800e-003**		**0.1596**	**0.1596**		**0.1510**	**0.1510**	**0.0000**	**693.4433**	**693.4433**	**0.1518**	**0.0000**	**697.2375**

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	0.0112	0.4071	0.1234	1.4200e-003	0.0375	4.6000e-004	0.0380	0.0108	4.4000e-004	0.0113	0.0000	139.4405	139.4405	9.3000e-003	0.0000	139.6730
Worker	0.0479	0.0279	0.3062	1.1300e-003	0.1478	8.9000e-004	0.1487	0.0393	8.2000e-004	0.0401	0.0000	102.6570	102.6570	2.2900e-003	0.0000	102.7143
Total	**0.0591**	**0.4351**	**0.4296**	**2.5500e-003**	**0.1853**	**1.3500e-003**	**0.1867**	**0.0501**	**1.2600e-003**	**0.0514**	**0.0000**	**242.0975**	**242.0975**	**0.0116**	**0.0000**	**242.3873**

3.3 Building Construction Phase C1 - 2027

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	0.4487	3.8887	4.6548	8.1800e-003		0.1596	0.1596		0.1510	0.1510	0.0000	693.4425	693.4425	0.1518	0.0000	697.2366
Total	**0.4487**	**3.8887**	**4.6548**	**8.1800e-003**		**0.1596**	**0.1596**		**0.1510**	**0.1510**	**0.0000**	**693.4425**	**693.4425**	**0.1518**	**0.0000**	**697.2366**

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	0.0112	0.4071	0.1234	1.4200e-003	0.0375	4.6000e-004	0.0380	0.0108	4.4000e-004	0.0113	0.0000	139.4405	139.4405	9.3000e-003	0.0000	139.6730
Worker	0.0479	0.0279	0.3062	1.1300e-003	0.1478	8.9000e-004	0.1487	0.0393	8.2000e-004	0.0401	0.0000	102.6570	102.6570	2.2900e-003	0.0000	102.7143
Total	**0.0591**	**0.4351**	**0.4296**	**2.5500e-003**	**0.1853**	**1.3500e-003**	**0.1867**	**0.0501**	**1.2600e-003**	**0.0514**	**0.0000**	**242.0975**	**242.0975**	**0.0116**	**0.0000**	**242.3873**

3.4 Site Preparation - Off-Site Improvements - 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					1.1924	0.0000	1.1924	0.6554	0.0000	0.6554	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1632	1.6654	1.1822	2.5100e-003		0.0717	0.0717		0.0660	0.0660	0.0000	220.8821	220.8821	0.0714	0.0000	222.6681
Total	**0.1632**	**1.6654**	**1.1822**	**2.5100e-003**	**1.1924**	**0.0717**	**1.2641**	**0.6554**	**0.0660**	**0.7214**	**0.0000**	**220.8821**	**220.8821**	**0.0714**	**0.0000**	**222.6681**

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	3.3600e-003	2.0700e-003	0.0223	8.0000e-005	9.5300e-003	6.0000e-005	9.5900e-003	2.5300e-003	6.0000e-005	2.5900e-003	0.0000	7.1079	7.1079	1.7000e-004	0.0000	7.1121
Total	**3.3600e-003**	**2.0700e-003**	**0.0223**	**8.0000e-005**	**9.5300e-003**	**6.0000e-005**	**9.5900e-003**	**2.5300e-003**	**6.0000e-005**	**2.5900e-003**	**0.0000**	**7.1079**	**7.1079**	**1.7000e-004**	**0.0000**	**7.1121**

3.4 Site Preparation - Off-Site Improvements - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4650	0.0000	0.4650	0.2556	0.0000	0.2556	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1632	1.6654	1.1822	2.5100e-003		0.0717	0.0717		0.0660	0.0660	0.0000	220.8819	220.8819	0.0714	0.0000	222.6678
Total	**0.1632**	**1.6654**	**1.1822**	**2.5100e-003**	**0.4650**	**0.0717**	**0.5368**	**0.2556**	**0.0660**	**0.3216**	**0.0000**	**220.8819**	**220.8819**	**0.0714**	**0.0000**	**222.6678**

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	3.3600e-003	2.0700e-003	0.0223	8.0000e-005	9.5300e-003	6.0000e-005	9.5900e-003	2.5300e-003	6.0000e-005	2.5900e-003	0.0000	7.1079	7.1079	1.7000e-004	0.0000	7.1121
Total	**3.3600e-003**	**2.0700e-003**	**0.0223**	**8.0000e-005**	**9.5300e-003**	**6.0000e-005**	**9.5900e-003**	**2.5300e-003**	**6.0000e-005**	**2.5900e-003**	**0.0000**	**7.1079**	**7.1079**	**1.7000e-004**	**0.0000**	**7.1121**

3.4 Site Preparation - Off-Site Improvements - 2026

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	6.1800e-003	0.0631	0.0448	1.0000e-004		2.7200e-003	2.7200e-003		2.5000e-003	2.5000e-003	0.0000	8.3668	8.3668	2.7100e-003	0.0000	8.4344
Total	**6.1800e-003**	**0.0631**	**0.0448**	**1.0000e-004**	**0.0452**	**2.7200e-003**	**0.0479**	**0.0248**	**2.5000e-003**	**0.0273**	**0.0000**	**8.3668**	**8.3668**	**2.7100e-003**	**0.0000**	**8.4344**

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	1.2000e-004	7.0000e-005	7.9000e-004	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.2594	0.2594	1.0000e-005	0.0000	0.2595
Total	**1.2000e-004**	**7.0000e-005**	**7.9000e-004**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.2594**	**0.2594**	**1.0000e-005**	**0.0000**	**0.2595**

3.4 Site Preparation - Off-Site Improvements - 2026

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					0.0176	0.0000	0.0176	9.6800e-003	0.0000	9.6800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.1800e-003	0.0631	0.0448	1.0000e-004		2.7200e-003	2.7200e-003		2.5000e-003	2.5000e-003	0.0000	8.3667	8.3667	2.7100e-003	0.0000	8.4344
Total	**6.1800e-003**	**0.0631**	**0.0448**	**1.0000e-004**	**0.0176**	**2.7200e-003**	**0.0203**	**9.6800e-003**	**2.5000e-003**	**0.0122**	**0.0000**	**8.3667**	**8.3667**	**2.7100e-003**	**0.0000**	**8.4344**

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	1.2000e-004	7.0000e-005	7.9000e-004	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.2594	0.2594	1.0000e-005	0.0000	0.2595
Total	**1.2000e-004**	**7.0000e-005**	**7.9000e-004**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**1.0000e-004**	**0.0000**	**1.0000e-004**	**0.0000**	**0.2594**	**0.2594**	**1.0000e-005**	**0.0000**	**0.2595**

3.5 Paving Phase C1 - 2027

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	0.0302	0.2832	0.4811	7.5000e-004		0.0138	0.0138		0.0127	0.0127	0.0000	66.0635	66.0635	0.0214	0.0000	66.5977
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0302**	**0.2832**	**0.4811**	**7.5000e-004**		**0.0138**	**0.0138**		**0.0127**	**0.0127**	**0.0000**	**66.0635**	**66.0635**	**0.0214**	**0.0000**	**66.5977**

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	1.2900e-003	7.5000e-004	8.2300e-003	3.0000e-005	3.9700e-003	2.0000e-005	3.9900e-003	1.0500e-003	2.0000e-005	1.0800e-003	0.0000	2.7576	2.7576	6.0000e-005	0.0000	2.7591
Total	**1.2900e-003**	**7.5000e-004**	**8.2300e-003**	**3.0000e-005**	**3.9700e-003**	**2.0000e-005**	**3.9900e-003**	**1.0500e-003**	**2.0000e-005**	**1.0800e-003**	**0.0000**	**2.7576**	**2.7576**	**6.0000e-005**	**0.0000**	**2.7591**

3.5 Paving Phase C1 - 2027

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	0.0302	0.2832	0.4811	7.5000e-004		0.0138	0.0138		0.0127	0.0127	0.0000	66.0635	66.0635	0.0214	0.0000	66.5976
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0302**	**0.2832**	**0.4811**	**7.5000e-004**		**0.0138**	**0.0138**		**0.0127**	**0.0127**	**0.0000**	**66.0635**	**66.0635**	**0.0214**	**0.0000**	**66.5976**

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	1.2900e-003	7.5000e-004	8.2300e-003	3.0000e-005	3.9700e-003	2.0000e-005	3.9900e-003	1.0500e-003	2.0000e-005	1.0800e-003	0.0000	2.7576	2.7576	6.0000e-005	0.0000	2.7591
Total	**1.2900e-003**	**7.5000e-004**	**8.2300e-003**	**3.0000e-005**	**3.9700e-003**	**2.0000e-005**	**3.9900e-003**	**1.0500e-003**	**2.0000e-005**	**1.0800e-003**	**0.0000**	**2.7576**	**2.7576**	**6.0000e-005**	**0.0000**	**2.7591**

3.5 Paving Phase C1 - 2028

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	0.0737	0.6908	1.1735	1.8400e-003		0.0337	0.0337		0.0310	0.0310	0.0000	161.1550	161.1550	0.0521	0.0000	162.4580
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0737**	**0.6908**	**1.1735**	**1.8400e-003**		**0.0337**	**0.0337**		**0.0310**	**0.0310**	**0.0000**	**161.1550**	**161.1550**	**0.0521**	**0.0000**	**162.4580**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9900e-003	1.7100e-003	0.0190	7.0000e-005	9.6800e-003	5.0000e-005	9.7400e-003	2.5700e-003	5.0000e-005	2.6200e-003	0.0000	6.5222	6.5222	1.4000e-004	0.0000	6.5258
Total	**2.9900e-003**	**1.7100e-003**	**0.0190**	**7.0000e-005**	**9.6800e-003**	**5.0000e-005**	**9.7400e-003**	**2.5700e-003**	**5.0000e-005**	**2.6200e-003**	**0.0000**	**6.5222**	**6.5222**	**1.4000e-004**	**0.0000**	**6.5258**

3.5 Paving Phase C1 - 2028

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	0.0737	0.6908	1.1735	1.8400e-003		0.0337	0.0337		0.0310	0.0310	0.0000	161.1548	161.1548	0.0521	0.0000	162.4578
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0737**	**0.6908**	**1.1735**	**1.8400e-003**		**0.0337**	**0.0337**		**0.0310**	**0.0310**	**0.0000**	**161.1548**	**161.1548**	**0.0521**	**0.0000**	**162.4578**

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	2.9900e-003	1.7100e-003	0.0190	7.0000e-005	9.6800e-003	5.0000e-005	9.7400e-003	2.5700e-003	5.0000e-005	2.6200e-003	0.0000	6.5222	6.5222	1.4000e-004	0.0000	6.5258
Total	**2.9900e-003**	**1.7100e-003**	**0.0190**	**7.0000e-005**	**9.6800e-003**	**5.0000e-005**	**9.7400e-003**	**2.5700e-003**	**5.0000e-005**	**2.6200e-003**	**0.0000**	**6.5222**	**6.5222**	**1.4000e-004**	**0.0000**	**6.5258**

3.6 Building Construction Phase C2 - 2028

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	0.3866	3.4199	4.0143	7.3900e-003		0.1403	0.1403		0.1334	0.1334	0.0000	630.1776	630.1776	0.1239	0.0000	633.2751
Total	**0.3866**	**3.4199**	**4.0143**	**7.3900e-003**		**0.1403**	**0.1403**		**0.1334**	**0.1334**	**0.0000**	**630.1776**	**630.1776**	**0.1239**	**0.0000**	**633.2751**

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	4.0400e-003	0.1480	0.0451	5.2000e-004	0.0138	1.7000e-004	0.0140	3.9900e-003	1.6000e-004	4.1400e-003	0.0000	51.0610	51.0610	3.3900e-003	0.0000	51.1458
Worker	0.0196	0.0113	0.1249	4.7000e-004	0.0636	3.5000e-004	0.0640	0.0169	3.3000e-004	0.0172	0.0000	42.8334	42.8334	9.3000e-004	0.0000	42.8566
Total	**0.0237**	**0.1593**	**0.1700**	**9.9000e-004**	**0.0774**	**5.2000e-004**	**0.0779**	**0.0209**	**4.9000e-004**	**0.0214**	**0.0000**	**93.8943**	**93.8943**	**4.3200e-003**	**0.0000**	**94.0024**

3.6 Building Construction Phase C2 - 2028

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	0.3866	3.4199	4.0143	7.3900e-003		0.1403	0.1403		0.1334	0.1334	0.0000	630.1768	630.1768	0.1239	0.0000	633.2743
Total	**0.3866**	**3.4199**	**4.0143**	**7.3900e-003**		**0.1403**	**0.1403**		**0.1334**	**0.1334**	**0.0000**	**630.1768**	**630.1768**	**0.1239**	**0.0000**	**633.2743**

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	4.0400e-003	0.1480	0.0451	5.2000e-004	0.0138	1.7000e-004	0.0140	3.9900e-003	1.6000e-004	4.1400e-003	0.0000	51.0610	51.0610	3.3900e-003	0.0000	51.1458
Worker	0.0196	0.0113	0.1249	4.7000e-004	0.0636	3.5000e-004	0.0640	0.0169	3.3000e-004	0.0172	0.0000	42.8334	42.8334	9.3000e-004	0.0000	42.8566
Total	**0.0237**	**0.1593**	**0.1700**	**9.9000e-004**	**0.0774**	**5.2000e-004**	**0.0779**	**0.0209**	**4.9000e-004**	**0.0214**	**0.0000**	**93.8943**	**93.8943**	**4.3200e-003**	**0.0000**	**94.0024**

3.6 Building Construction Phase C2 - 2029

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	0.7762	6.8662	8.0596	0.0148		0.2818	0.2818		0.2678	0.2678	0.0000	1,265.2026	1,265.2026	0.2488	0.0000	1,271.4214
Total	**0.7762**	**6.8662**	**8.0596**	**0.0148**		**0.2818**	**0.2818**		**0.2678**	**0.2678**	**0.0000**	**1,265.2026**	**1,265.2026**	**0.2488**	**0.0000**	**1,271.4214**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.9800e-003	0.2935	0.0899	1.0300e-003	0.0277	3.3000e-004	0.0280	8.0000e-003	3.1000e-004	8.3100e-003	0.0000	102.0673	102.0673	6.7700e-003	0.0000	102.2366
Worker	0.0373	0.0212	0.2375	9.2000e-004	0.1277	6.6000e-004	0.1283	0.0339	6.1000e-004	0.0345	0.0000	83.6248	83.6248	1.7600e-003	0.0000	83.6687
Total	**0.0452**	**0.3147**	**0.3274**	**1.9500e-003**	**0.1554**	**9.9000e-004**	**0.1564**	**0.0419**	**9.2000e-004**	**0.0428**	**0.0000**	**185.6921**	**185.6921**	**8.5300e-003**	**0.0000**	**185.9053**

3.6 Building Construction Phase C2 - 2029

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	0.7762	6.8662	8.0595	0.0148		0.2818	0.2818		0.2678	0.2678	0.0000	1,265.2011	1,265.2011	0.2488	0.0000	1,271.4199
Total	**0.7762**	**6.8662**	**8.0595**	**0.0148**		**0.2818**	**0.2818**		**0.2678**	**0.2678**	**0.0000**	**1,265.2011**	**1,265.2011**	**0.2488**	**0.0000**	**1,271.4199**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.9800e-003	0.2935	0.0899	1.0300e-003	0.0277	3.3000e-004	0.0280	8.0000e-003	3.1000e-004	8.3100e-003	0.0000	102.0673	102.0673	6.7700e-003	0.0000	102.2366
Worker	0.0373	0.0212	0.2375	9.2000e-004	0.1277	6.6000e-004	0.1283	0.0339	6.1000e-004	0.0345	0.0000	83.6248	83.6248	1.7600e-003	0.0000	83.6687
Total	**0.0452**	**0.3147**	**0.3274**	**1.9500e-003**	**0.1554**	**9.9000e-004**	**0.1564**	**0.0419**	**9.2000e-004**	**0.0428**	**0.0000**	**185.6921**	**185.6921**	**8.5300e-003**	**0.0000**	**185.9053**

3.6 Building Construction Phase C2 - 2030

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	0.6732	4.1672	7.8810	0.0166		0.0814	0.0814		0.0814	0.0814	0.0000	1,399.8181	1,399.8181	0.0544	0.0000	1,401.1780
Total	**0.6732**	**4.1672**	**7.8810**	**0.0166**		**0.0814**	**0.0814**		**0.0814**	**0.0814**	**0.0000**	**1,399.8181**	**1,399.8181**	**0.0544**	**0.0000**	**1,401.1780**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.8700e-003	0.2904	0.0895	1.0300e-003	0.0277	3.2000e-004	0.0280	8.0000e-003	3.1000e-004	8.3100e-003	0.0000	101.7032	101.7032	6.7400e-003	0.0000	101.8716
Worker	0.0349	0.0199	0.2250	9.0000e-004	0.1277	6.1000e-004	0.1283	0.0339	5.6000e-004	0.0345	0.0000	81.5397	81.5397	1.6600e-003	0.0000	81.5812
Total	**0.0428**	**0.3103**	**0.3145**	**1.9300e-003**	**0.1554**	**9.3000e-004**	**0.1563**	**0.0419**	**8.7000e-004**	**0.0428**	**0.0000**	**183.2428**	**183.2428**	**8.4000e-003**	**0.0000**	**183.4527**

3.6 Building Construction Phase C2 - 2030

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	0.6732	4.1672	7.8809	0.0166		0.0814	0.0814		0.0814	0.0814	0.0000	1,399.8164	1,399.8164	0.0544	0.0000	1,401.1763
Total	**0.6732**	**4.1672**	**7.8809**	**0.0166**		**0.0814**	**0.0814**		**0.0814**	**0.0814**	**0.0000**	**1,399.8164**	**1,399.8164**	**0.0544**	**0.0000**	**1,401.1763**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.8700e-003	0.2904	0.0895	1.0300e-003	0.0277	3.2000e-004	0.0280	8.0000e-003	3.1000e-004	8.3100e-003	0.0000	101.7032	101.7032	6.7400e-003	0.0000	101.8716
Worker	0.0349	0.0199	0.2250	9.0000e-004	0.1277	6.1000e-004	0.1283	0.0339	5.6000e-004	0.0345	0.0000	81.5397	81.5397	1.6600e-003	0.0000	81.5812
Total	**0.0428**	**0.3103**	**0.3145**	**1.9300e-003**	**0.1554**	**9.3000e-004**	**0.1563**	**0.0419**	**8.7000e-004**	**0.0428**	**0.0000**	**183.2428**	**183.2428**	**8.4000e-003**	**0.0000**	**183.4527**

3.6 Building Construction Phase C2 - 2031

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	0.5055	3.1294	5.9183	0.0125		0.0611	0.0611		0.0611	0.0611	0.0000	1,051.2044	1,051.2044	0.0409	0.0000	1,052.2256
Total	**0.5055**	**3.1294**	**5.9183**	**0.0125**		**0.0611**	**0.0611**		**0.0611**	**0.0611**	**0.0000**	**1,051.2044**	**1,051.2044**	**0.0409**	**0.0000**	**1,052.2256**

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	5.8400e-003	0.2161	0.0670	7.7000e-004	0.0208	2.4000e-004	0.0211	6.0100e-003	2.3000e-004	6.2300e-003	0.0000	76.1450	76.1450	5.0300e-003	0.0000	76.2708
Worker	0.0244	0.0140	0.1600	6.6000e-004	0.0959	4.3000e-004	0.0963	0.0255	3.9000e-004	0.0259	0.0000	59.8626	59.8626	1.1800e-003	0.0000	59.8921
Total	**0.0302**	**0.2301**	**0.2271**	**1.4300e-003**	**0.1167**	**6.7000e-004**	**0.1174**	**0.0315**	**6.2000e-004**	**0.0321**	**0.0000**	**136.0077**	**136.0077**	**6.2100e-003**	**0.0000**	**136.1629**

3.6 Building Construction Phase C2 - 2031

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	0.5055	3.1294	5.9183	0.0125		0.0611	0.0611		0.0611	0.0611	0.0000	1,051.2031	1,051.2031	0.0409	0.0000	1,052.2244
Total	**0.5055**	**3.1294**	**5.9183**	**0.0125**		**0.0611**	**0.0611**		**0.0611**	**0.0611**	**0.0000**	**1,051.2031**	**1,051.2031**	**0.0409**	**0.0000**	**1,052.2244**

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	5.8400e-003	0.2161	0.0670	7.7000e-004	0.0208	2.4000e-004	0.0211	6.0100e-003	2.3000e-004	6.2300e-003	0.0000	76.1450	76.1450	5.0300e-003	0.0000	76.2708
Worker	0.0244	0.0140	0.1600	6.6000e-004	0.0959	4.3000e-004	0.0963	0.0255	3.9000e-004	0.0259	0.0000	59.8626	59.8626	1.1800e-003	0.0000	59.8921
Total	**0.0302**	**0.2301**	**0.2271**	**1.4300e-003**	**0.1167**	**6.7000e-004**	**0.1174**	**0.0315**	**6.2000e-004**	**0.0321**	**0.0000**	**136.0077**	**136.0077**	**6.2100e-003**	**0.0000**	**136.1629**

3.7 Architectural Coating Phase C1 - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2074					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0332	0.2222	0.3510	5.8000e-004		9.9900e-003	9.9900e-003		9.9900e-003	9.9900e-003	0.0000	49.5331	49.5331	2.7000e-003	0.0000	49.6007
Total	**1.2405**	**0.2222**	**0.3510**	**5.8000e-004**		**9.9900e-003**	**9.9900e-003**		**9.9900e-003**	**9.9900e-003**	**0.0000**	**49.5331**	**49.5331**	**2.7000e-003**	**0.0000**	**49.6007**

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	4.5600e-003	2.6200e-003	0.0290	1.1000e-004	0.0148	8.0000e-005	0.0149	3.9300e-003	8.0000e-005	4.0000e-003	0.0000	9.9548	9.9548	2.2000e-004	0.0000	9.9602
Total	**4.5600e-003**	**2.6200e-003**	**0.0290**	**1.1000e-004**	**0.0148**	**8.0000e-005**	**0.0149**	**3.9300e-003**	**8.0000e-005**	**4.0000e-003**	**0.0000**	**9.9548**	**9.9548**	**2.2000e-004**	**0.0000**	**9.9602**

3.7 Architectural Coating Phase C1 - 2028

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.2074					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0332	0.2222	0.3510	5.8000e-004		9.9900e-003	9.9900e-003		9.9900e-003	9.9900e-003	0.0000	49.5331	49.5331	2.7000e-003	0.0000	49.6006
Total	**1.2405**	**0.2222**	**0.3510**	**5.8000e-004**		**9.9900e-003**	**9.9900e-003**		**9.9900e-003**	**9.9900e-003**	**0.0000**	**49.5331**	**49.5331**	**2.7000e-003**	**0.0000**	**49.6006**

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	4.5600e-003	2.6200e-003	0.0290	1.1000e-004	0.0148	8.0000e-005	0.0149	3.9300e-003	8.0000e-005	4.0000e-003	0.0000	9.9548	9.9548	2.2000e-004	0.0000	9.9602
Total	**4.5600e-003**	**2.6200e-003**	**0.0290**	**1.1000e-004**	**0.0148**	**8.0000e-005**	**0.0149**	**3.9300e-003**	**8.0000e-005**	**4.0000e-003**	**0.0000**	**9.9548**	**9.9548**	**2.2000e-004**	**0.0000**	**9.9602**

3.7 Architectural Coating Phase C1 - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.6181					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0444	0.2978	0.4704	7.7000e-004		0.0134	0.0134		0.0134	0.0134	0.0000	66.3846	66.3846	3.6200e-003	0.0000	66.4751
Total	**1.6626**	**0.2978**	**0.4704**	**7.7000e-004**		**0.0134**	**0.0134**		**0.0134**	**0.0134**	**0.0000**	**66.3846**	**66.3846**	**3.6200e-003**	**0.0000**	**66.4751**

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	5.7800e-003	3.2900e-003	0.0369	1.4000e-004	0.0198	1.0000e-004	0.0199	5.2600e-003	9.0000e-005	5.3600e-003	0.0000	12.9736	12.9736	2.7000e-004	0.0000	12.9805
Total	**5.7800e-003**	**3.2900e-003**	**0.0369**	**1.4000e-004**	**0.0198**	**1.0000e-004**	**0.0199**	**5.2600e-003**	**9.0000e-005**	**5.3600e-003**	**0.0000**	**12.9736**	**12.9736**	**2.7000e-004**	**0.0000**	**12.9805**

3.7 Architectural Coating Phase C1 - 2029

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.6181					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0444	0.2978	0.4704	7.7000e-004		0.0134	0.0134		0.0134	0.0134	0.0000	66.3845	66.3845	3.6200e-003	0.0000	66.4751
Total	**1.6626**	**0.2978**	**0.4704**	**7.7000e-004**		**0.0134**	**0.0134**		**0.0134**	**0.0134**	**0.0000**	**66.3845**	**66.3845**	**3.6200e-003**	**0.0000**	**66.4751**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.7800e-003	3.2900e-003	0.0369	1.4000e-004	0.0198	1.0000e-004	0.0199	5.2600e-003	9.0000e-005	5.3600e-003	0.0000	12.9736	12.9736	2.7000e-004	0.0000	12.9805
Total	**5.7800e-003**	**3.2900e-003**	**0.0369**	**1.4000e-004**	**0.0198**	**1.0000e-004**	**0.0199**	**5.2600e-003**	**9.0000e-005**	**5.3600e-003**	**0.0000**	**12.9736**	**12.9736**	**2.7000e-004**	**0.0000**	**12.9805**

3.8 Paving Phase C2 - 2031

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	0.0742	0.3886	0.8501	1.5000e-003		0.0177	0.0177		0.0177	0.0177	0.0000	128.5611	128.5611	6.0600e-003	0.0000	128.7125
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0742**	**0.3886**	**0.8501**	**1.5000e-003**		**0.0177**	**0.0177**		**0.0177**	**0.0177**	**0.0000**	**128.5611**	**128.5611**	**6.0600e-003**	**0.0000**	**128.7125**

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	1.6600e-003	9.5000e-004	0.0109	4.0000e-005	6.5200e-003	3.0000e-005	6.5400e-003	1.7300e-003	3.0000e-005	1.7600e-003	0.0000	4.0681	4.0681	8.0000e-005	0.0000	4.0701
Total	**1.6600e-003**	**9.5000e-004**	**0.0109**	**4.0000e-005**	**6.5200e-003**	**3.0000e-005**	**6.5400e-003**	**1.7300e-003**	**3.0000e-005**	**1.7600e-003**	**0.0000**	**4.0681**	**4.0681**	**8.0000e-005**	**0.0000**	**4.0701**

3.8 Paving Phase C2 - 2031

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	0.0742	0.3886	0.8501	1.5000e-003		0.0177	0.0177		0.0177	0.0177	0.0000	128.5609	128.5609	6.0600e-003	0.0000	128.7124
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0742**	**0.3886**	**0.8501**	**1.5000e-003**		**0.0177**	**0.0177**		**0.0177**	**0.0177**	**0.0000**	**128.5609**	**128.5609**	**6.0600e-003**	**0.0000**	**128.7124**

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	1.6600e-003	9.5000e-004	0.0109	4.0000e-005	6.5200e-003	3.0000e-005	6.5400e-003	1.7300e-003	3.0000e-005	1.7600e-003	0.0000	4.0681	4.0681	8.0000e-005	0.0000	4.0701
Total	**1.6600e-003**	**9.5000e-004**	**0.0109**	**4.0000e-005**	**6.5200e-003**	**3.0000e-005**	**6.5400e-003**	**1.7300e-003**	**3.0000e-005**	**1.7600e-003**	**0.0000**	**4.0681**	**4.0681**	**8.0000e-005**	**0.0000**	**4.0701**

3.8 Paving Phase C2 - 2032

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	0.1849	0.9684	2.1188	3.7300e-003		0.0441	0.0441		0.0441	0.0441	0.0000	320.4137	320.4137	0.0151	0.0000	320.7912
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1849**	**0.9684**	**2.1188**	**3.7300e-003**		**0.0441**	**0.0441**		**0.0441**	**0.0441**	**0.0000**	**320.4137**	**320.4137**	**0.0151**	**0.0000**	**320.7912**

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	3.8500e-003	2.2300e-003	0.0258	1.1000e-004	0.0162	7.0000e-005	0.0163	4.3200e-003	6.0000e-005	4.3800e-003	0.0000	9.9376	9.9376	1.9000e-004	0.0000	9.9424
Total	**3.8500e-003**	**2.2300e-003**	**0.0258**	**1.1000e-004**	**0.0162**	**7.0000e-005**	**0.0163**	**4.3200e-003**	**6.0000e-005**	**4.3800e-003**	**0.0000**	**9.9376**	**9.9376**	**1.9000e-004**	**0.0000**	**9.9424**

3.8 Paving Phase C2 - 2032

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	0.1849	0.9684	2.1188	3.7300e-003		0.0441	0.0441		0.0441	0.0441	0.0000	320.4133	320.4133	0.0151	0.0000	320.7908
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.1849**	**0.9684**	**2.1188**	**3.7300e-003**		**0.0441**	**0.0441**		**0.0441**	**0.0441**	**0.0000**	**320.4133**	**320.4133**	**0.0151**	**0.0000**	**320.7908**

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	3.8500e-003	2.2300e-003	0.0258	1.1000e-004	0.0162	7.0000e-005	0.0163	4.3200e-003	6.0000e-005	4.3800e-003	0.0000	9.9376	9.9376	1.9000e-004	0.0000	9.9424
Total	**3.8500e-003**	**2.2300e-003**	**0.0258**	**1.1000e-004**	**0.0162**	**7.0000e-005**	**0.0163**	**4.3200e-003**	**6.0000e-005**	**4.3800e-003**	**0.0000**	**9.9376**	**9.9376**	**1.9000e-004**	**0.0000**	**9.9424**

3.9 Building Construction Phase C3 - 2032

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	0.1323	0.6768	1.3012	3.2700e-003		0.0147	0.0147		0.0147	0.0147	0.0000	279.0193	279.0193	0.0107	0.0000	279.2861
Total	**0.1323**	**0.6768**	**1.3012**	**3.2700e-003**		**0.0147**	**0.0147**		**0.0147**	**0.0147**	**0.0000**	**279.0193**	**279.0193**	**0.0107**	**0.0000**	**279.2861**

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	3.9000e-003	0.1443	0.0451	5.2000e-004	0.0140	1.6000e-004	0.0142	4.0500e-003	1.5000e-004	4.2000e-003	0.0000	51.1662	51.1662	3.3800e-003	0.0000	51.2506
Worker	0.0153	8.8700e-003	0.1026	4.4000e-004	0.0646	2.7000e-004	0.0648	0.0172	2.5000e-004	0.0174	0.0000	39.5148	39.5148	7.6000e-004	0.0000	39.5337
Total	**0.0192**	**0.1532**	**0.1477**	**9.6000e-004**	**0.0786**	**4.3000e-004**	**0.0790**	**0.0212**	**4.0000e-004**	**0.0216**	**0.0000**	**90.6810**	**90.6810**	**4.1400e-003**	**0.0000**	**90.7843**

3.9 Building Construction Phase C3 - 2032

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	0.1323	0.6768	1.3011	3.2700e-003		0.0147	0.0147		0.0147	0.0147	0.0000	279.0190	279.0190	0.0107	0.0000	279.2858
Total	**0.1323**	**0.6768**	**1.3011**	**3.2700e-003**		**0.0147**	**0.0147**		**0.0147**	**0.0147**	**0.0000**	**279.0190**	**279.0190**	**0.0107**	**0.0000**	**279.2858**

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	3.9000e-003	0.1443	0.0451	5.2000e-004	0.0140	1.6000e-004	0.0142	4.0500e-003	1.5000e-004	4.2000e-003	0.0000	51.1662	51.1662	3.3800e-003	0.0000	51.2506
Worker	0.0153	8.8700e-003	0.1026	4.4000e-004	0.0646	2.7000e-004	0.0648	0.0172	2.5000e-004	0.0174	0.0000	39.5148	39.5148	7.6000e-004	0.0000	39.5337
Total	**0.0192**	**0.1532**	**0.1477**	**9.6000e-004**	**0.0786**	**4.3000e-004**	**0.0790**	**0.0212**	**4.0000e-004**	**0.0216**	**0.0000**	**90.6810**	**90.6810**	**4.1400e-003**	**0.0000**	**90.7843**

3.9 Building Construction Phase C3 - 2033

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	0.2605	1.3331	2.5629	6.4400e-003		0.0289	0.0289		0.0289	0.0289	0.0000	549.5834	549.5834	0.0210	0.0000	550.1091
Total	**0.2605**	**1.3331**	**2.5629**	**6.4400e-003**		**0.0289**	**0.0289**		**0.0289**	**0.0289**	**0.0000**	**549.5834**	**549.5834**	**0.0210**	**0.0000**	**550.1091**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.6300e-003	0.2822	0.0887	1.0200e-003	0.0276	3.0000e-004	0.0279	7.9700e-003	2.9000e-004	8.2600e-003	0.0000	100.5983	100.5983	6.6300e-003	0.0000	100.7639
Worker	0.0282	0.0166	0.1933	8.4000e-004	0.1272	4.9000e-004	0.1277	0.0338	4.5000e-004	0.0343	0.0000	76.4739	76.4739	1.4300e-003	0.0000	76.5095
Total	**0.0359**	**0.2988**	**0.2820**	**1.8600e-003**	**0.1548**	**7.9000e-004**	**0.1556**	**0.0418**	**7.4000e-004**	**0.0425**	**0.0000**	**177.0722**	**177.0722**	**8.0600e-003**	**0.0000**	**177.2734**

3.9 Building Construction Phase C3 - 2033

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	0.2605	1.3331	2.5629	6.4400e-003		0.0289	0.0289		0.0289	0.0289	0.0000	549.5828	549.5828	0.0210	0.0000	550.1084
Total	**0.2605**	**1.3331**	**2.5629**	**6.4400e-003**		**0.0289**	**0.0289**		**0.0289**	**0.0289**	**0.0000**	**549.5828**	**549.5828**	**0.0210**	**0.0000**	**550.1084**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.6300e-003	0.2822	0.0887	1.0200e-003	0.0276	3.0000e-004	0.0279	7.9700e-003	2.9000e-004	8.2600e-003	0.0000	100.5983	100.5983	6.6300e-003	0.0000	100.7639
Worker	0.0282	0.0166	0.1933	8.4000e-004	0.1272	4.9000e-004	0.1277	0.0338	4.5000e-004	0.0343	0.0000	76.4739	76.4739	1.4300e-003	0.0000	76.5095
Total	**0.0359**	**0.2988**	**0.2820**	**1.8600e-003**	**0.1548**	**7.9000e-004**	**0.1556**	**0.0418**	**7.4000e-004**	**0.0425**	**0.0000**	**177.0722**	**177.0722**	**8.0600e-003**	**0.0000**	**177.2734**

3.9 Building Construction Phase C3 - 2034

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	0.2605	1.3331	2.5629	6.4400e-003		0.0289	0.0289		0.0289	0.0289	0.0000	549.5834	549.5834	0.0210	0.0000	550.1091
Total	**0.2605**	**1.3331**	**2.5629**	**6.4400e-003**		**0.0289**	**0.0289**		**0.0289**	**0.0289**	**0.0000**	**549.5834**	**549.5834**	**0.0210**	**0.0000**	**550.1091**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.5900e-003	0.2803	0.0886	1.0200e-003	0.0276	3.0000e-004	0.0279	7.9700e-003	2.9000e-004	8.2600e-003	0.0000	100.4588	100.4588	6.6100e-003	0.0000	100.6240
Worker	0.0266	0.0158	0.1848	8.3000e-004	0.1272	4.6000e-004	0.1277	0.0338	4.2000e-004	0.0342	0.0000	75.3035	75.3035	1.3700e-003	0.0000	75.3376
Total	**0.0342**	**0.2962**	**0.2734**	**1.8500e-003**	**0.1548**	**7.6000e-004**	**0.1556**	**0.0418**	**7.1000e-004**	**0.0425**	**0.0000**	**175.7623**	**175.7623**	**7.9800e-003**	**0.0000**	**175.9616**

3.9 Building Construction Phase C3 - 2034

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	0.2605	1.3331	2.5629	6.4400e-003		0.0289	0.0289		0.0289	0.0289	0.0000	549.5828	549.5828	0.0210	0.0000	550.1084
Total	**0.2605**	**1.3331**	**2.5629**	**6.4400e-003**		**0.0289**	**0.0289**		**0.0289**	**0.0289**	**0.0000**	**549.5828**	**549.5828**	**0.0210**	**0.0000**	**550.1084**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.5900e-003	0.2803	0.0886	1.0200e-003	0.0276	3.0000e-004	0.0279	7.9700e-003	2.9000e-004	8.2600e-003	0.0000	100.4588	100.4588	6.6100e-003	0.0000	100.6240
Worker	0.0266	0.0158	0.1848	8.3000e-004	0.1272	4.6000e-004	0.1277	0.0338	4.2000e-004	0.0342	0.0000	75.3035	75.3035	1.3700e-003	0.0000	75.3376
Total	**0.0342**	**0.2962**	**0.2734**	**1.8500e-003**	**0.1548**	**7.6000e-004**	**0.1556**	**0.0418**	**7.1000e-004**	**0.0425**	**0.0000**	**175.7623**	**175.7623**	**7.9800e-003**	**0.0000**	**175.9616**

3.9 Building Construction Phase C3 - 2035

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	0.1810	0.8425	1.9270	4.8600e-003		0.0137	0.0137		0.0137	0.0137	0.0000	414.3014	414.3014	0.0146	0.0000	414.6653
Total	**0.1810**	**0.8425**	**1.9270**	**4.8600e-003**		**0.0137**	**0.0137**		**0.0137**	**0.0137**	**0.0000**	**414.3014**	**414.3014**	**0.0146**	**0.0000**	**414.6653**

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	5.6900e-003	0.2102	0.0667	7.6000e-004	0.0208	2.2000e-004	0.0210	6.0100e-003	2.1000e-004	6.2200e-003	0.0000	75.6488	75.6488	4.9700e-003	0.0000	75.7730
Worker	0.0190	0.0115	0.1339	6.2000e-004	0.0959	3.3000e-004	0.0962	0.0255	3.0000e-004	0.0258	0.0000	56.0220	56.0220	9.9000e-004	0.0000	56.0467
Total	**0.0247**	**0.2217**	**0.2006**	**1.3800e-003**	**0.1167**	**5.5000e-004**	**0.1172**	**0.0315**	**5.1000e-004**	**0.0320**	**0.0000**	**131.6708**	**131.6708**	**5.9600e-003**	**0.0000**	**131.8198**

3.9 Building Construction Phase C3 - 2035

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	0.1810	0.8425	1.9269	4.8600e-003		0.0137	0.0137		0.0137	0.0137	0.0000	414.3009	414.3009	0.0146	0.0000	414.6648
Total	**0.1810**	**0.8425**	**1.9269**	**4.8600e-003**		**0.0137**	**0.0137**		**0.0137**	**0.0137**	**0.0000**	**414.3009**	**414.3009**	**0.0146**	**0.0000**	**414.6648**

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	5.6900e-003	0.2102	0.0667	7.6000e-004	0.0208	2.2000e-004	0.0210	6.0100e-003	2.1000e-004	6.2200e-003	0.0000	75.6488	75.6488	4.9700e-003	0.0000	75.7730
Worker	0.0190	0.0115	0.1339	6.2000e-004	0.0959	3.3000e-004	0.0962	0.0255	3.0000e-004	0.0258	0.0000	56.0220	56.0220	9.9000e-004	0.0000	56.0467
Total	**0.0247**	**0.2217**	**0.2006**	**1.3800e-003**	**0.1167**	**5.5000e-004**	**0.1172**	**0.0315**	**5.1000e-004**	**0.0320**	**0.0000**	**131.6708**	**131.6708**	**5.9600e-003**	**0.0000**	**131.8198**

3.10 Architectural Coating Phase C2 - 2032

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	0.8328					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0256	0.1678	0.3524	5.8000e-004		3.9800e-003	3.9800e-003		3.9800e-003	3.9800e-003	0.0000	50.0438	50.0438	2.0300e-003	0.0000	50.0944
Total	**0.8585**	**0.1678**	**0.3524**	**5.8000e-004**		**3.9800e-003**	**3.9800e-003**		**3.9800e-003**	**3.9800e-003**	**0.0000**	**50.0438**	**50.0438**	**2.0300e-003**	**0.0000**	**50.0944**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2300e-003	1.3000e-003	0.0150	6.0000e-005	9.4300e-003	4.0000e-005	9.4700e-003	2.5100e-003	4.0000e-005	2.5400e-003	0.0000	5.7712	5.7712	1.1000e-004	0.0000	5.7739
Total	**2.2300e-003**	**1.3000e-003**	**0.0150**	**6.0000e-005**	**9.4300e-003**	**4.0000e-005**	**9.4700e-003**	**2.5100e-003**	**4.0000e-005**	**2.5400e-003**	**0.0000**	**5.7712**	**5.7712**	**1.1000e-004**	**0.0000**	**5.7739**

3.10 Architectural Coating Phase C2 - 2032

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	0.8328					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0256	0.1678	0.3524	5.8000e-004		3.9800e-003	3.9800e-003		3.9800e-003	3.9800e-003	0.0000	50.0437	50.0437	2.0300e-003	0.0000	50.0944
Total	**0.8585**	**0.1678**	**0.3524**	**5.8000e-004**		**3.9800e-003**	**3.9800e-003**		**3.9800e-003**	**3.9800e-003**	**0.0000**	**50.0437**	**50.0437**	**2.0300e-003**	**0.0000**	**50.0944**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2300e-003	1.3000e-003	0.0150	6.0000e-005	9.4300e-003	4.0000e-005	9.4700e-003	2.5100e-003	4.0000e-005	2.5400e-003	0.0000	5.7712	5.7712	1.1000e-004	0.0000	5.7739
Total	**2.2300e-003**	**1.3000e-003**	**0.0150**	**6.0000e-005**	**9.4300e-003**	**4.0000e-005**	**9.4700e-003**	**2.5100e-003**	**4.0000e-005**	**2.5400e-003**	**0.0000**	**5.7712**	**5.7712**	**1.1000e-004**	**0.0000**	**5.7739**

3.10 Architectural Coating Phase C2 - 2033

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.0963					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0337	0.2209	0.4638	7.7000e-004		5.2400e-003	5.2400e-003		5.2400e-003	5.2400e-003	0.0000	65.8740	65.8740	2.6700e-003	0.0000	65.9406
Total	**1.1300**	**0.2209**	**0.4638**	**7.7000e-004**		**5.2400e-003**	**5.2400e-003**		**5.2400e-003**	**5.2400e-003**	**0.0000**	**65.8740**	**65.8740**	**2.6700e-003**	**0.0000**	**65.9406**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7600e-003	1.6200e-003	0.0189	8.0000e-005	0.0124	5.0000e-005	0.0125	3.3000e-003	4.0000e-005	3.3400e-003	0.0000	7.4642	7.4642	1.4000e-004	0.0000	7.4676
Total	**2.7600e-003**	**1.6200e-003**	**0.0189**	**8.0000e-005**	**0.0124**	**5.0000e-005**	**0.0125**	**3.3000e-003**	**4.0000e-005**	**3.3400e-003**	**0.0000**	**7.4642**	**7.4642**	**1.4000e-004**	**0.0000**	**7.4676**

3.10 Architectural Coating Phase C2 - 2033

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.0963					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0337	0.2209	0.4638	7.7000e-004		5.2400e-003	5.2400e-003		5.2400e-003	5.2400e-003	0.0000	65.8739	65.8739	2.6700e-003	0.0000	65.9405
Total	**1.1300**	**0.2209**	**0.4638**	**7.7000e-004**		**5.2400e-003**	**5.2400e-003**		**5.2400e-003**	**5.2400e-003**	**0.0000**	**65.8739**	**65.8739**	**2.6700e-003**	**0.0000**	**65.9405**

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	2.7600e-003	1.6200e-003	0.0189	8.0000e-005	0.0124	5.0000e-005	0.0125	3.3000e-003	4.0000e-005	3.3400e-003	0.0000	7.4642	7.4642	1.4000e-004	0.0000	7.4676
Total	**2.7600e-003**	**1.6200e-003**	**0.0189**	**8.0000e-005**	**0.0124**	**5.0000e-005**	**0.0125**	**3.3000e-003**	**4.0000e-005**	**3.3400e-003**	**0.0000**	**7.4642**	**7.4642**	**1.4000e-004**	**0.0000**	**7.4676**

3.11 Paving Phase C3 - 2035

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	0.0371	0.1585	0.5142	9.1000e-004		6.0900e-003	6.0900e-003		6.0900e-003	6.0900e-003	0.0000	78.3234	78.3234	3.0100e-003	0.0000	78.3988
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0371**	**0.1585**	**0.5142**	**9.1000e-004**		**6.0900e-003**	**6.0900e-003**		**6.0900e-003**	**6.0900e-003**	**0.0000**	**78.3234**	**78.3234**	**3.0100e-003**	**0.0000**	**78.3988**

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	7.7000e-004	4.7000e-004	5.4600e-003	3.0000e-005	3.9100e-003	1.0000e-005	3.9200e-003	1.0400e-003	1.0000e-005	1.0500e-003	0.0000	2.2843	2.2843	4.0000e-005	0.0000	2.2853
Total	**7.7000e-004**	**4.7000e-004**	**5.4600e-003**	**3.0000e-005**	**3.9100e-003**	**1.0000e-005**	**3.9200e-003**	**1.0400e-003**	**1.0000e-005**	**1.0500e-003**	**0.0000**	**2.2843**	**2.2843**	**4.0000e-005**	**0.0000**	**2.2853**

3.11 Paving Phase C3 - 2035

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	0.0371	0.1585	0.5142	9.1000e-004		6.0900e-003	6.0900e-003		6.0900e-003	6.0900e-003	0.0000	78.3233	78.3233	3.0100e-003	0.0000	78.3987
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0371**	**0.1585**	**0.5142**	**9.1000e-004**		**6.0900e-003**	**6.0900e-003**		**6.0900e-003**	**6.0900e-003**	**0.0000**	**78.3233**	**78.3233**	**3.0100e-003**	**0.0000**	**78.3987**

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	7.7000e-004	4.7000e-004	5.4600e-003	3.0000e-005	3.9100e-003	1.0000e-005	3.9200e-003	1.0400e-003	1.0000e-005	1.0500e-003	0.0000	2.2843	2.2843	4.0000e-005	0.0000	2.2853
Total	**7.7000e-004**	**4.7000e-004**	**5.4600e-003**	**3.0000e-005**	**3.9100e-003**	**1.0000e-005**	**3.9200e-003**	**1.0400e-003**	**1.0000e-005**	**1.0500e-003**	**0.0000**	**2.2843**	**2.2843**	**4.0000e-005**	**0.0000**	**2.2853**

3.11 Paving Phase C3 - 2036

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	0.0930	0.3974	1.2894	2.2900e-003		0.0153	0.0153		0.0153	0.0153	0.0000	196.4110	196.4110	7.5600e-003	0.0000	196.6000
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0930**	**0.3974**	**1.2894**	**2.2900e-003**		**0.0153**	**0.0153**		**0.0153**	**0.0153**	**0.0000**	**196.4110**	**196.4110**	**7.5600e-003**	**0.0000**	**196.6000**

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	1.9400e-003	1.1800e-003	0.0137	6.0000e-005	9.8000e-003	3.0000e-005	9.8400e-003	2.6100e-003	3.0000e-005	2.6400e-003	0.0000	5.7283	5.7283	1.0000e-004	0.0000	5.7308
Total	**1.9400e-003**	**1.1800e-003**	**0.0137**	**6.0000e-005**	**9.8000e-003**	**3.0000e-005**	**9.8400e-003**	**2.6100e-003**	**3.0000e-005**	**2.6400e-003**	**0.0000**	**5.7283**	**5.7283**	**1.0000e-004**	**0.0000**	**5.7308**

3.11 Paving Phase C3 - 2036

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	0.0930	0.3974	1.2894	2.2900e-003		0.0153	0.0153		0.0153	0.0153	0.0000	196.4108	196.4108	7.5600e-003	0.0000	196.5998
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0930**	**0.3974**	**1.2894**	**2.2900e-003**		**0.0153**	**0.0153**		**0.0153**	**0.0153**	**0.0000**	**196.4108**	**196.4108**	**7.5600e-003**	**0.0000**	**196.5998**

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	1.9400e-003	1.1800e-003	0.0137	6.0000e-005	9.8000e-003	3.0000e-005	9.8400e-003	2.6100e-003	3.0000e-005	2.6400e-003	0.0000	5.7283	5.7283	1.0000e-004	0.0000	5.7308
Total	**1.9400e-003**	**1.1800e-003**	**0.0137**	**6.0000e-005**	**9.8000e-003**	**3.0000e-005**	**9.8400e-003**	**2.6100e-003**	**3.0000e-005**	**2.6400e-003**	**0.0000**	**5.7283**	**5.7283**	**1.0000e-004**	**0.0000**	**5.7308**

3.12 Architectural Coating Phase C3 - 2036

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	0.8376					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0233	0.1500	0.3553	5.9000e-004		1.9600e-003	1.9600e-003		1.9600e-003	1.9600e-003	0.0000	50.5544	50.5544	1.8700e-003	0.0000	50.6011
Total	**0.8610**	**0.1500**	**0.3553**	**5.9000e-004**		**1.9600e-003**	**1.9600e-003**		**1.9600e-003**	**1.9600e-003**	**0.0000**	**50.5544**	**50.5544**	**1.8700e-003**	**0.0000**	**50.6011**

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	1.8900e-003	1.1400e-003	0.0133	6.0000e-005	9.5300e-003	3.0000e-005	9.5600e-003	2.5300e-003	3.0000e-005	2.5600e-003	0.0000	5.5666	5.5666	1.0000e-004	0.0000	5.5691
Total	**1.8900e-003**	**1.1400e-003**	**0.0133**	**6.0000e-005**	**9.5300e-003**	**3.0000e-005**	**9.5600e-003**	**2.5300e-003**	**3.0000e-005**	**2.5600e-003**	**0.0000**	**5.5666**	**5.5666**	**1.0000e-004**	**0.0000**	**5.5691**

3.12 Architectural Coating Phase C3 - 2036

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	0.8376					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0233	0.1500	0.3553	5.9000e-004		1.9600e-003	1.9600e-003		1.9600e-003	1.9600e-003	0.0000	50.5544	50.5544	1.8700e-003	0.0000	50.6011
Total	**0.8610**	**0.1500**	**0.3553**	**5.9000e-004**		**1.9600e-003**	**1.9600e-003**		**1.9600e-003**	**1.9600e-003**	**0.0000**	**50.5544**	**50.5544**	**1.8700e-003**	**0.0000**	**50.6011**

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	1.8900e-003	1.1400e-003	0.0133	6.0000e-005	9.5300e-003	3.0000e-005	9.5600e-003	2.5300e-003	3.0000e-005	2.5600e-003	0.0000	5.5666	5.5666	1.0000e-004	0.0000	5.5691
Total	**1.8900e-003**	**1.1400e-003**	**0.0133**	**6.0000e-005**	**9.5300e-003**	**3.0000e-005**	**9.5600e-003**	**2.5300e-003**	**3.0000e-005**	**2.5600e-003**	**0.0000**	**5.5666**	**5.5666**	**1.0000e-004**	**0.0000**	**5.5691**

3.12 Architectural Coating Phase C3 - 2037

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.0915					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0304	0.1955	0.4629	7.7000e-004		2.5600e-003	2.5600e-003		2.5600e-003	2.5600e-003	0.0000	65.8740	65.8740	2.4300e-003	0.0000	65.9348
Total	**1.1219**	**0.1955**	**0.4629**	**7.7000e-004**		**2.5600e-003**	**2.5600e-003**		**2.5600e-003**	**2.5600e-003**	**0.0000**	**65.8740**	**65.8740**	**2.4300e-003**	**0.0000**	**65.9348**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4600e-003	1.4900e-003	0.0173	8.0000e-005	0.0124	4.0000e-005	0.0125	3.3000e-003	4.0000e-005	3.3400e-003	0.0000	7.2534	7.2534	1.3000e-004	0.0000	7.2566
Total	**2.4600e-003**	**1.4900e-003**	**0.0173**	**8.0000e-005**	**0.0124**	**4.0000e-005**	**0.0125**	**3.3000e-003**	**4.0000e-005**	**3.3400e-003**	**0.0000**	**7.2534**	**7.2534**	**1.3000e-004**	**0.0000**	**7.2566**

3.12 Architectural Coating Phase C3 - 2037

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.0915					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0304	0.1955	0.4629	7.7000e-004		2.5600e-003	2.5600e-003		2.5600e-003	2.5600e-003	0.0000	65.8739	65.8739	2.4300e-003	0.0000	65.9347
Total	**1.1219**	**0.1955**	**0.4629**	**7.7000e-004**		**2.5600e-003**	**2.5600e-003**		**2.5600e-003**	**2.5600e-003**	**0.0000**	**65.8739**	**65.8739**	**2.4300e-003**	**0.0000**	**65.9347**

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	2.4600e-003	1.4900e-003	0.0173	8.0000e-005	0.0124	4.0000e-005	0.0125	3.3000e-003	4.0000e-005	3.3400e-003	0.0000	7.2534	7.2534	1.3000e-004	0.0000	7.2566
Total	**2.4600e-003**	**1.4900e-003**	**0.0173**	**8.0000e-005**	**0.0124**	**4.0000e-005**	**0.0125**	**3.3000e-003**	**4.0000e-005**	**3.3400e-003**	**0.0000**	**7.2534**	**7.2534**	**1.3000e-004**	**0.0000**	**7.2566**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	0.00	0.00	0.00		
Apartments Mid Rise	0.00	0.00	0.00		
Apartments Mid Rise	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
City Park	0.00	0.00	0.00		
Condo/Townhouse High Rise	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Health Club	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
Medical Office Building	0.00	0.00	0.00		
Regional Shopping Center	0.00	0.00	0.00		
Research & Development	0.00	0.00	0.00		
Supermarket	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

SDSU - San Diego County, Annual

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	0.00	0.00	0.00	41.60	18.80	39.60	86	11	3
Apartments Mid Rise	0.00	0.00	0.00	41.60	18.80	39.60	86	11	3
Apartments Mid Rise	0.00	0.00	0.00	41.60	18.80	39.60	86	11	3
City Park	0.00	0.00	0.00	33.00	48.00	19.00	66	28	6
City Park	0.00	0.00	0.00	33.00	48.00	19.00	66	28	6
City Park	0.00	0.00	0.00	33.00	48.00	19.00	66	28	6
Condo/Townhouse High Rise	0.00	0.00	0.00	41.60	18.80	39.60	86	11	3
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0
General Office Building	0.00	0.00	0.00	33.00	48.00	19.00	77	19	4
Health Club	0.00	0.00	0.00	16.90	64.10	19.00	52	39	9
Hotel	0.00	0.00	0.00	19.40	61.60	19.00	58	38	4
Medical Office Building	0.00	0.00	0.00	29.60	51.40	19.00	60	30	10
Regional Shopping Center	0.00	0.00	0.00	16.30	64.70	19.00	54	35	11
Research & Development	0.00	0.00	0.00	33.00	48.00	19.00	82	15	3
Supermarket	0.00	0.00	0.00	6.50	74.50	19.00	34	30	36

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments High Rise	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
Apartments Mid Rise	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
City Park	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
Condo/Townhouse High Rise	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
Enclosed Parking with Elevator	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
General Office Building	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
Health Club	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
Hotel	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
Medical Office Building	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
Regional Shopping Center	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
Research & Development	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
Supermarket	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Medical Office Building	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Supermarket	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Health Club	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hotel	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Medical Office Building	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Research & Development	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Supermarket	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	0	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000
Health Club	0	0.0000	0.0000	0.0000	0.0000
Hotel	0	0.0000	0.0000	0.0000	0.0000
Medical Office Building	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Research & Development	0	0.0000	0.0000	0.0000	0.0000
Supermarket	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	0	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000
Health Club	0	0.0000	0.0000	0.0000	0.0000
Hotel	0	0.0000	0.0000	0.0000	0.0000
Medical Office Building	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Research & Development	0	0.0000	0.0000	0.0000	0.0000
Supermarket	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	37.9953	0.3938	34.1583	1.8100e-003		0.1899	0.1899		0.1899	0.1899	0.0000	56.0326	56.0326	0.0537	0.0000	57.3759
Unmitigated	37.9953	0.3938	34.1583	1.8100e-003		0.1899	0.1899		0.1899	0.1899	0.0000	56.0326	56.0326	0.0537	0.0000	57.3759

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	9.8225					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	27.1439					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0289	0.3938	34.1583	1.8100e-003		0.1899	0.1899		0.1899	0.1899	0.0000	56.0326	56.0326	0.0537	0.0000	57.3759
Total	**37.9953**	**0.3938**	**34.1583**	**1.8100e-003**		**0.1899**	**0.1899**		**0.1899**	**0.1899**	**0.0000**	**56.0326**	**56.0326**	**0.0537**	**0.0000**	**57.3759**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	9.8225					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	27.1439					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0289	0.3938	34.1583	1.8100e-003		0.1899	0.1899		0.1899	0.1899	0.0000	56.0326	56.0326	0.0537	0.0000	57.3759
Total	**37.9953**	**0.3938**	**34.1583**	**1.8100e-003**		**0.1899**	**0.1899**		**0.1899**	**0.1899**	**0.0000**	**56.0326**	**56.0326**	**0.0537**	**0.0000**	**57.3759**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	0 / 0	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	0 / 0	0.0000	0.0000	0.0000	0.0000
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	0 / 0	0.0000	0.0000	0.0000	0.0000
Health Club	0 / 0	0.0000	0.0000	0.0000	0.0000
Hotel	0 / 0	0.0000	0.0000	0.0000	0.0000
Medical Office Building	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0 / 0	0.0000	0.0000	0.0000	0.0000
Research & Development	0 / 0	0.0000	0.0000	0.0000	0.0000
Supermarket	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	0 / 0	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	0 / 0	0.0000	0.0000	0.0000	0.0000
City Park	0 / 0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	0 / 0	0.0000	0.0000	0.0000	0.0000
Health Club	0 / 0	0.0000	0.0000	0.0000	0.0000
Hotel	0 / 0	0.0000	0.0000	0.0000	0.0000
Medical Office Building	0 / 0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0 / 0	0.0000	0.0000	0.0000	0.0000
Research & Development	0 / 0	0.0000	0.0000	0.0000	0.0000
Supermarket	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	0	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000
Health Club	0	0.0000	0.0000	0.0000	0.0000
Hotel	0	0.0000	0.0000	0.0000	0.0000
Medical Office Building	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Research & Development	0	0.0000	0.0000	0.0000	0.0000
Supermarket	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	0	0.0000	0.0000	0.0000	0.0000
Apartments Mid Rise	0	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	0	0.0000	0.0000	0.0000	0.0000
Health Club	0	0.0000	0.0000	0.0000	0.0000
Hotel	0	0.0000	0.0000	0.0000	0.0000
Medical Office Building	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0	0.0000	0.0000	0.0000	0.0000
Research & Development	0	0.0000	0.0000	0.0000	0.0000
Supermarket	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX B-3
SDSU PROJECT CONSTRUCTION ON-ROAD CONSTRUCTION TRIP EMISSION FACTORS (2020 – 2023)

SDSU Vehicle Trip Emission Factors (2020-2023)

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse High Rise	70.00	Dwelling Unit	0.24	70,000.00	200

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - SDSU Vehicle Trip Emission Factors (2020-2023) Run

Land Use - SDSU Vehicle Trip Emission Factors (2020-2023) Run

Construction Phase - SDSU Vehicle Trip Emission Factors (2020-2023) Run

Trips and VMT - SDSU Vehicle Trip Emission Factors (2020-2023) Run

Vehicle Trips - SDSU Vehicle Trip Emission Factors (2020-2023) Run

Energy Use -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	5.00	0.00
tblConstructionPhase	NumDays	100.00	1.00

tblConstructionPhase	NumDays	10.00	1.00
tblConstructionPhase	NumDays	2.00	1.00
tblConstructionPhase	NumDays	5.00	0.00
tblLandUse	LotAcreage	1.09	0.24
tblTripsAndVMT	HaulingTripNumber	0.00	10,000.00
tblTripsAndVMT	HaulingTripNumber	0.00	10,000.00
tblTripsAndVMT	HaulingTripNumber	0.00	10,000.00
tblTripsAndVMT	HaulingTripNumber	0.00	10,000.00
tblTripsAndVMT	HaulingTripNumber	0.00	10,000.00
tblTripsAndVMT	HaulingTripNumber	0.00	10,000.00
tblTripsAndVMT	VendorTripNumber	0.00	10,000.00
tblTripsAndVMT	VendorTripNumber	0.00	10,000.00
tblTripsAndVMT	VendorTripNumber	0.00	10,000.00
tblTripsAndVMT	VendorTripNumber	0.00	10,000.00
tblTripsAndVMT	VendorTripNumber	0.00	10,000.00
tblTripsAndVMT	VendorTripNumber	7.00	10,000.00
tblTripsAndVMT	WorkerTripNumber	10.00	10,000.00
tblTripsAndVMT	WorkerTripNumber	18.00	10,000.00
tblTripsAndVMT	WorkerTripNumber	10.00	10,000.00
tblTripsAndVMT	WorkerTripNumber	5.00	10,000.00
tblTripsAndVMT	WorkerTripNumber	10.00	10,000.00
tblTripsAndVMT	WorkerTripNumber	50.00	10,000.00
tblVehicleTrips	HO_TL	7.50	1.00
tblVehicleTrips	HS_TL	7.30	1.00
tblVehicleTrips	HW_TL	10.80	1.00
tblVehicleTrips	ST_TR	4.31	1.00
tblVehicleTrips	SU_TR	3.43	1.00

tblVehicleTrips	WD_TR	4.18	1.00

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					
2020	0.0779	2.0098	0.6148	5.6500e-003	0.2874	7.7900e-003	0.2952	0.0753	7.4400e-003	0.0827	0.0000	554.3193	554.3193	0.0460	0.0000	555.4699
2021	0.0707	1.8360	0.5861	5.5600e-003	0.1591	5.4700e-003	0.1646	0.0438	5.2100e-003	0.0490	0.0000	546.9843	546.9843	0.0452	0.0000	548.1146
2022	0.0664	1.6936	0.5692	5.4700e-003	0.1592	4.7300e-003	0.1639	0.0439	4.5100e-003	0.0485	0.0000	539.5601	539.5601	0.0444	0.0000	540.6707
2023	0.0522	1.2150	0.5288	5.2800e-003	0.1588	2.4100e-003	0.1612	0.0437	2.2900e-003	0.0460	0.0000	522.2487	522.2487	0.0421	0.0000	523.3002
Maximum	**0.0779**	**2.0098**	**0.6148**	**5.6500e-003**	**0.2874**	**7.7900e-003**	**0.2952**	**0.0753**	**7.4400e-003**	**0.0827**	**0.0000**	**554.3193**	**554.3193**	**0.0460**	**0.0000**	**555.4699**

2.1 Overall Construction

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					
2020	0.0779	2.0098	0.6148	5.6500e-003	0.2874	7.7900e-003	0.2952	0.0753	7.4400e-003	0.0827	0.0000	554.3193	554.3193	0.0460	0.0000	555.4699
2021	0.0707	1.8360	0.5861	5.5600e-003	0.1591	5.4700e-003	0.1646	0.0438	5.2100e-003	0.0490	0.0000	546.9843	546.9843	0.0452	0.0000	548.1146
2022	0.0664	1.6936	0.5692	5.4700e-003	0.1592	4.7300e-003	0.1639	0.0439	4.5100e-003	0.0485	0.0000	539.5601	539.5601	0.0444	0.0000	540.6707
2023	0.0522	1.2150	0.5288	5.2800e-003	0.1588	2.4100e-003	0.1612	0.0437	2.2900e-003	0.0460	0.0000	522.2487	522.2487	0.0421	0.0000	523.3002
Maximum	**0.0779**	**2.0098**	**0.6148**	**5.6500e-003**	**0.2874**	**7.7900e-003**	**0.2952**	**0.0753**	**7.4400e-003**	**0.0827**	**0.0000**	**554.3193**	**554.3193**	**0.0460**	**0.0000**	**555.4699**

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

Quarter	**Start Date**	**End Date**	**Maximum Unmitigated ROG + NOX (tons/quarter)**	**Maximum Mitigated ROG + NOX (tons/quarter)**
1	**1-1-2020**	**3-31-2020**	1.4791	1.4791
5	**1-1-2021**	**3-31-2021**	1.3507	1.3507
9	**1-1-2022**	**3-31-2022**	3.7403	3.7403
13	**1-1-2023**	**3-31-2023**	1.7965	1.7965
		Highest	3.7403	3.7403

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	4.7907	0.0918	5.9413	9.8500e-003		0.7631	0.7631		0.7631	0.7631	72.3070	31.1735	103.4806	0.0675	5.6900e-003	106.8640
Energy	2.8000e-003	0.0240	0.0102	1.5000e-004		1.9400e-003	1.9400e-003		1.9400e-003	1.9400e-003	0.0000	122.8651	122.8651	4.4600e-003	1.3200e-003	123.3703
Mobile	0.0108	0.0374	0.0655	1.3000e-004	8.5500e-003	1.3000e-004	8.6800e-003	2.2900e-003	1.2000e-004	2.4100e-003	0.0000	12.2015	12.2015	9.9000e-004	0.0000	12.2263
Waste						0.0000	0.0000		0.0000	0.0000	6.5363	0.0000	6.5363	0.3863	0.0000	16.1934
Water						0.0000	0.0000		0.0000	0.0000	1.4469	29.0998	30.5467	0.1498	3.7600e-003	35.4118
Total	**4.8043**	**0.1531**	**6.0169**	**0.0101**	**8.5500e-003**	**0.7651**	**0.7737**	**2.2900e-003**	**0.7651**	**0.7674**	**80.2903**	**195.3399**	**275.6302**	**0.6091**	**0.0108**	**294.0658**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.7907	0.0918	5.9413	9.8500e-003		0.7631	0.7631		0.7631	0.7631	72.3070	31.1735	103.4806	0.0675	5.6900e-003	106.8640
Energy	2.8000e-003	0.0240	0.0102	1.5000e-004		1.9400e-003	1.9400e-003		1.9400e-003	1.9400e-003	0.0000	122.8651	122.8651	4.4600e-003	1.3200e-003	123.3703
Mobile	0.0108	0.0374	0.0655	1.3000e-004	8.5500e-003	1.3000e-004	8.6800e-003	2.2900e-003	1.2000e-004	2.4100e-003	0.0000	12.2015	12.2015	9.9000e-004	0.0000	12.2263
Waste						0.0000	0.0000		0.0000	0.0000	6.5363	0.0000	6.5363	0.3863	0.0000	16.1934
Water						0.0000	0.0000		0.0000	0.0000	1.4469	29.0998	30.5467	0.1498	3.7600e-003	35.4118
Total	**4.8043**	**0.1531**	**6.0169**	**0.0101**	**8.5500e-003**	**0.7651**	**0.7737**	**2.2900e-003**	**0.7651**	**0.7674**	**80.2903**	**195.3399**	**275.6302**	**0.6091**	**0.0108**	**294.0658**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	1/1/2020	5	1	
2	Paving	Paving	6/6/2020	6/5/2020	5	0	
3	Architectural Coating	Architectural Coating	6/13/2020	6/12/2020	5	0	
4	Site Preparation	Site Preparation	1/1/2021	1/1/2021	5	1	
5	Grading	Grading	1/1/2022	1/3/2022	5	1	
6	Building Construction	Building Construction	1/1/2023	1/2/2023	5	1	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 141,750; Residential Outdoor: 47,250; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	1.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	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	4	10,000.00	10,000.00	10,000.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	10,000.00	10,000.00	10,000.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10,000.00	10,000.00	10,000.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	10,000.00	10,000.00	10,000.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	10,000.00	10,000.00	10,000.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10,000.00	10,000.00	10,000.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**		**2.3000e-004**	**2.3000e-004**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.2 Demolition - 2020

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	0.0400	1.4223	0.3258	3.8900e-003	0.0856	4.4900e-003	0.0901	0.0235	4.2900e-003	0.0278	0.0000	385.6244	385.6244	0.0347	0.0000	386.4926
Vendor	0.0191	0.5699	0.1514	1.3500e-003	0.0332	2.7800e-003	0.0360	9.5800e-003	2.6600e-003	0.0122	0.0000	131.9307	131.9307	0.0101	0.0000	132.1835
Worker	0.0184	0.0137	0.1338	4.0000e-004	0.0401	2.9000e-004	0.0404	0.0107	2.7000e-004	0.0109	0.0000	36.2438	36.2438	1.0900e-003	0.0000	36.2710
Total	**0.0775**	**2.0058**	**0.6110**	**5.6400e-003**	**0.1589**	**7.5600e-003**	**0.1664**	**0.0437**	**7.2200e-003**	**0.0510**	**0.0000**	**553.7989**	**553.7989**	**0.0459**	**0.0000**	**554.9471**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.3000e-004	3.9400e-003	3.8100e-003	1.0000e-005		2.3000e-004	2.3000e-004		2.2000e-004	2.2000e-004	0.0000	0.5204	0.5204	1.0000e-004	0.0000	0.5228
Total	**4.3000e-004**	**3.9400e-003**	**3.8100e-003**	**1.0000e-005**		**2.3000e-004**	**2.3000e-004**		**2.2000e-004**	**2.2000e-004**	**0.0000**	**0.5204**	**0.5204**	**1.0000e-004**	**0.0000**	**0.5228**

3.2 Demolition - 2020

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	0.0400	1.4223	0.3258	3.8900e-003	0.0856	4.4900e-003	0.0901	0.0235	4.2900e-003	0.0278	0.0000	385.6244	385.6244	0.0347	0.0000	386.4926
Vendor	0.0191	0.5699	0.1514	1.3500e-003	0.0332	2.7800e-003	0.0360	9.5800e-003	2.6600e-003	0.0122	0.0000	131.9307	131.9307	0.0101	0.0000	132.1835
Worker	0.0184	0.0137	0.1338	4.0000e-004	0.0401	2.9000e-004	0.0404	0.0107	2.7000e-004	0.0109	0.0000	36.2438	36.2438	1.0900e-003	0.0000	36.2710
Total	**0.0775**	**2.0058**	**0.6110**	**5.6400e-003**	**0.1589**	**7.5600e-003**	**0.1664**	**0.0437**	**7.2200e-003**	**0.0510**	**0.0000**	**553.7989**	**553.7989**	**0.0459**	**0.0000**	**554.9471**

3.3 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Paving - 2020

Unmitigated Construction Off-Site

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

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Paving - 2020

Mitigated Construction Off-Site

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

3.4 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Architectural Coating - 2020

Unmitigated Construction Off-Site

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

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

3.4 Architectural Coating - 2020

Mitigated Construction Off-Site

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

3.5 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2000e-004	3.9100e-003	2.0100e-003	0.0000		1.5000e-004	1.5000e-004		1.4000e-004	1.4000e-004	0.0000	0.4276	0.4276	1.4000e-004	0.0000	0.4310
Total	**3.2000e-004**	**3.9100e-003**	**2.0100e-003**	**0.0000**	**2.7000e-004**	**1.5000e-004**	**4.2000e-004**	**3.0000e-005**	**1.4000e-004**	**1.7000e-004**	**0.0000**	**0.4276**	**0.4276**	**1.4000e-004**	**0.0000**	**0.4310**

3.5 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0376	1.3058	0.3221	3.8300e-003	0.0856	3.9500e-003	0.0895	0.0235	3.7700e-003	0.0273	0.0000	380.8106	380.8106	0.0344	0.0000	381.6698
Vendor	0.0155	0.5138	0.1370	1.3400e-003	0.0332	1.0900e-003	0.0343	9.5800e-003	1.0400e-003	0.0106	0.0000	130.7200	130.7200	9.7000e-003	0.0000	130.9626
Worker	0.0174	0.0124	0.1249	3.9000e-004	0.0401	2.8000e-004	0.0404	0.0107	2.6000e-004	0.0109	0.0000	35.0261	35.0261	1.0000e-003	0.0000	35.0512
Total	**0.0704**	**1.8321**	**0.5840**	**5.5600e-003**	**0.1589**	**5.3200e-003**	**0.1642**	**0.0437**	**5.0700e-003**	**0.0488**	**0.0000**	**546.5567**	**546.5567**	**0.0451**	**0.0000**	**547.6836**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2000e-004	3.9100e-003	2.0100e-003	0.0000		1.5000e-004	1.5000e-004		1.4000e-004	1.4000e-004	0.0000	0.4276	0.4276	1.4000e-004	0.0000	0.4310
Total	**3.2000e-004**	**3.9100e-003**	**2.0100e-003**	**0.0000**	**2.7000e-004**	**1.5000e-004**	**4.2000e-004**	**3.0000e-005**	**1.4000e-004**	**1.7000e-004**	**0.0000**	**0.4276**	**0.4276**	**1.4000e-004**	**0.0000**	**0.4310**

3.5 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0376	1.3058	0.3221	3.8300e-003	0.0856	3.9500e-003	0.0895	0.0235	3.7700e-003	0.0273	0.0000	380.8106	380.8106	0.0344	0.0000	381.6698
Vendor	0.0155	0.5138	0.1370	1.3400e-003	0.0332	1.0900e-003	0.0343	9.5800e-003	1.0400e-003	0.0106	0.0000	130.7200	130.7200	9.7000e-003	0.0000	130.9626
Worker	0.0174	0.0124	0.1249	3.9000e-004	0.0401	2.8000e-004	0.0404	0.0107	2.6000e-004	0.0109	0.0000	35.0261	35.0261	1.0000e-003	0.0000	35.0512
Total	**0.0704**	**1.8321**	**0.5840**	**5.5600e-003**	**0.1589**	**5.3200e-003**	**0.1642**	**0.0437**	**5.0700e-003**	**0.0488**	**0.0000**	**546.5567**	**546.5567**	**0.0451**	**0.0000**	**547.6836**

3.6 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.8000e-004	0.0000	3.8000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5000e-004	3.2100e-003	3.7300e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.6000e-004	1.6000e-004	0.0000	0.5207	0.5207	1.0000e-004	0.0000	0.5231
Total	**3.5000e-004**	**3.2100e-003**	**3.7300e-003**	**1.0000e-005**	**3.8000e-004**	**1.7000e-004**	**5.5000e-004**	**2.1000e-004**	**1.6000e-004**	**3.7000e-004**	**0.0000**	**0.5207**	**0.5207**	**1.0000e-004**	**0.0000**	**0.5231**

3.6 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0353	1.1939	0.3197	3.7700e-003	0.0856	3.3400e-003	0.0889	0.0235	3.2000e-003	0.0267	0.0000	375.8152	375.8152	0.0340	0.0000	376.6654
Vendor	0.0144	0.4852	0.1297	1.3200e-003	0.0332	9.4000e-004	0.0341	9.5800e-003	9.0000e-004	0.0105	0.0000	129.4821	129.4821	9.4000e-003	0.0000	129.7171
Worker	0.0165	0.0113	0.1160	3.7000e-004	0.0401	2.8000e-004	0.0404	0.0107	2.6000e-004	0.0109	0.0000	33.7422	33.7422	9.2000e-004	0.0000	33.7651
Total	**0.0661**	**1.6904**	**0.5654**	**5.4600e-003**	**0.1589**	**4.5600e-003**	**0.1634**	**0.0437**	**4.3600e-003**	**0.0481**	**0.0000**	**539.0395**	**539.0395**	**0.0443**	**0.0000**	**540.1476**

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					3.8000e-004	0.0000	3.8000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.5000e-004	3.2100e-003	3.7300e-003	1.0000e-005		1.7000e-004	1.7000e-004		1.6000e-004	1.6000e-004	0.0000	0.5207	0.5207	1.0000e-004	0.0000	0.5231
Total	**3.5000e-004**	**3.2100e-003**	**3.7300e-003**	**1.0000e-005**	**3.8000e-004**	**1.7000e-004**	**5.5000e-004**	**2.1000e-004**	**1.6000e-004**	**3.7000e-004**	**0.0000**	**0.5207**	**0.5207**	**1.0000e-004**	**0.0000**	**0.5231**

3.6 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0353	1.1939	0.3197	3.7700e-003	0.0856	3.3400e-003	0.0889	0.0235	3.2000e-003	0.0267	0.0000	375.8152	375.8152	0.0340	0.0000	376.6654
Vendor	0.0144	0.4852	0.1297	1.3200e-003	0.0332	9.4000e-004	0.0341	9.5800e-003	9.0000e-004	0.0105	0.0000	129.4821	129.4821	9.4000e-003	0.0000	129.7171
Worker	0.0165	0.0113	0.1160	3.7000e-004	0.0401	2.8000e-004	0.0404	0.0107	2.6000e-004	0.0109	0.0000	33.7422	33.7422	9.2000e-004	0.0000	33.7651
Total	**0.0661**	**1.6904**	**0.5654**	**5.4600e-003**	**0.1589**	**4.5600e-003**	**0.1634**	**0.0437**	**4.3600e-003**	**0.0481**	**0.0000**	**539.0395**	**539.0395**	**0.0443**	**0.0000**	**540.1476**

3.7 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.2000e-004	3.2100e-003	3.5500e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.5000e-004	1.5000e-004	0.0000	0.5010	0.5010	1.6000e-004	0.0000	0.5051
Total	**3.2000e-004**	**3.2100e-003**	**3.5500e-003**	**1.0000e-005**		**1.6000e-004**	**1.6000e-004**		**1.5000e-004**	**1.5000e-004**	**0.0000**	**0.5010**	**0.5010**	**1.6000e-004**	**0.0000**	**0.5051**

3.7 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0252	0.8202	0.2995	3.6300e-003	0.0856	1.5200e-003	0.0871	0.0235	1.4500e-003	0.0250	0.0000	363.0718	363.0718	0.0325	0.0000	363.8837
Vendor	0.0111	0.3812	0.1181	1.2900e-003	0.0332	4.6000e-004	0.0336	9.5800e-003	4.4000e-004	0.0100	0.0000	126.2225	126.2225	8.5800e-003	0.0000	126.4371
Worker	0.0156	0.0103	0.1076	3.6000e-004	0.0401	2.7000e-004	0.0404	0.0107	2.5000e-004	0.0109	0.0000	32.4533	32.4533	8.4000e-004	0.0000	32.4743
Total	**0.0519**	**1.2118**	**0.5252**	**5.2800e-003**	**0.1589**	**2.2500e-003**	**0.1611**	**0.0437**	**2.1400e-003**	**0.0459**	**0.0000**	**521.7476**	**521.7476**	**0.0419**	**0.0000**	**522.7951**

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	3.2000e-004	3.2100e-003	3.5500e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.5000e-004	1.5000e-004	0.0000	0.5010	0.5010	1.6000e-004	0.0000	0.5051
Total	**3.2000e-004**	**3.2100e-003**	**3.5500e-003**	**1.0000e-005**		**1.6000e-004**	**1.6000e-004**		**1.5000e-004**	**1.5000e-004**	**0.0000**	**0.5010**	**0.5010**	**1.6000e-004**	**0.0000**	**0.5051**

3.7 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0252	0.8202	0.2995	3.6300e-003	0.0856	1.5200e-003	0.0871	0.0235	1.4500e-003	0.0250	0.0000	363.0718	363.0718	0.0325	0.0000	363.8837
Vendor	0.0111	0.3812	0.1181	1.2900e-003	0.0332	4.6000e-004	0.0336	9.5800e-003	4.4000e-004	0.0100	0.0000	126.2225	126.2225	8.5800e-003	0.0000	126.4371
Worker	0.0156	0.0103	0.1076	3.6000e-004	0.0401	2.7000e-004	0.0404	0.0107	2.5000e-004	0.0109	0.0000	32.4533	32.4533	8.4000e-004	0.0000	32.4743
Total	**0.0519**	**1.2118**	**0.5252**	**5.2800e-003**	**0.1589**	**2.2500e-003**	**0.1611**	**0.0437**	**2.1400e-003**	**0.0459**	**0.0000**	**521.7476**	**521.7476**	**0.0419**	**0.0000**	**522.7951**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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					
Mitigated	0.0108	0.0374	0.0655	1.3000e-004	8.5500e-003	1.3000e-004	8.6800e-003	2.2900e-003	1.2000e-004	2.4100e-003	0.0000	12.2015	12.2015	9.9000e-004	0.0000	12.2263
Unmitigated	0.0108	0.0374	0.0655	1.3000e-004	8.5500e-003	1.3000e-004	8.6800e-003	2.2900e-003	1.2000e-004	2.4100e-003	0.0000	12.2015	12.2015	9.9000e-004	0.0000	12.2263

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse High Rise	70.00	70.00	70.00	22,690	22,690
Total	70.00	70.00	70.00	22,690	22,690

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse High Rise	1.00	1.00	1.00	41.60	18.80	39.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse High Rise	0.606234	0.039465	0.179154	0.102641	0.014368	0.005395	0.016820	0.024508	0.001929	0.001857	0.005869	0.000761	0.000998

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	95.1153	95.1153	3.9300e-003	8.1000e-004	95.4556
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	95.1153	95.1153	3.9300e-003	8.1000e-004	95.4556
NaturalGas Mitigated	2.8000e-003	0.0240	0.0102	1.5000e-004		1.9400e-003	1.9400e-003		1.9400e-003	1.9400e-003	0.0000	27.7498	27.7498	5.3000e-004	5.1000e-004	27.9147
NaturalGas Unmitigated	2.8000e-003	0.0240	0.0102	1.5000e-004		1.9400e-003	1.9400e-003		1.9400e-003	1.9400e-003	0.0000	27.7498	27.7498	5.3000e-004	5.1000e-004	27.9147

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse High Rise	520012	2.8000e-003	0.0240	0.0102	1.5000e-004		1.9400e-003	1.9400e-003		1.9400e-003	1.9400e-003	0.0000	27.7498	27.7498	5.3000e-004	5.1000e-004	27.9147
Total		**2.8000e-003**	**0.0240**	**0.0102**	**1.5000e-004**		**1.9400e-003**	**1.9400e-003**		**1.9400e-003**	**1.9400e-003**	**0.0000**	**27.7498**	**27.7498**	**5.3000e-004**	**5.1000e-004**	**27.9147**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse High Rise	520012	2.8000e-003	0.0240	0.0102	1.5000e-004		1.9400e-003	1.9400e-003		1.9400e-003	1.9400e-003	0.0000	27.7498	27.7498	5.3000e-004	5.1000e-004	27.9147
Total		**2.8000e-003**	**0.0240**	**0.0102**	**1.5000e-004**		**1.9400e-003**	**1.9400e-003**		**1.9400e-003**	**1.9400e-003**	**0.0000**	**27.7498**	**27.7498**	**5.3000e-004**	**5.1000e-004**	**27.9147**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse High Rise	298521	95.1153	3.9300e-003	8.1000e-004	95.4556
Total		**95.1153**	**3.9300e-003**	**8.1000e-004**	**95.4556**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse High Rise	298521	95.1153	3.9300e-003	8.1000e-004	95.4556
Total		**95.1153**	**3.9300e-003**	**8.1000e-004**	**95.4556**

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	4.7907	0.0918	5.9413	9.8500e-003		0.7631	0.7631		0.7631	0.7631	72.3070	31.1735	103.4806	0.0675	5.6900e-003	106.8640
Unmitigated	4.7907	0.0918	5.9413	9.8500e-003		0.7631	0.7631		0.7631	0.7631	72.3070	31.1735	103.4806	0.0675	5.6900e-003	106.8640

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1095					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2734					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	4.3922	0.0858	5.4217	9.8200e-003		0.7602	0.7602		0.7602	0.7602	72.3070	30.3245	102.6316	0.0667	5.6900e-003	105.9946
Landscaping	0.0156	5.9900e-003	0.5195	3.0000e-005		2.8800e-003	2.8800e-003		2.8800e-003	2.8800e-003	0.0000	0.8490	0.8490	8.1000e-004	0.0000	0.8694
Total	**4.7907**	**0.0918**	**5.9413**	**9.8500e-003**		**0.7631**	**0.7631**		**0.7631**	**0.7631**	**72.3070**	**31.1735**	**103.4806**	**0.0675**	**5.6900e-003**	**106.8640**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1095					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2734					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	4.3922	0.0858	5.4217	9.8200e-003		0.7602	0.7602		0.7602	0.7602	72.3070	30.3245	102.6316	0.0667	5.6900e-003	105.9946
Landscaping	0.0156	5.9900e-003	0.5195	3.0000e-005		2.8800e-003	2.8800e-003		2.8800e-003	2.8800e-003	0.0000	0.8490	0.8490	8.1000e-004	0.0000	0.8694
Total	**4.7907**	**0.0918**	**5.9413**	**9.8500e-003**		**0.7631**	**0.7631**		**0.7631**	**0.7631**	**72.3070**	**31.1735**	**103.4806**	**0.0675**	**5.6900e-003**	**106.8640**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	30.5467	0.1498	3.7600e-003	35.4118
Unmitigated	30.5467	0.1498	3.7600e-003	35.4118

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse High Rise	4.56078 / 2.87528	30.5467	0.1498	3.7600e-003	35.4118
Total		**30.5467**	**0.1498**	**3.7600e-003**	**35.4118**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse High Rise	4.56078 / 2.87528	30.5467	0.1498	3.7600e-003	35.4118
Total		**30.5467**	**0.1498**	**3.7600e-003**	**35.4118**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	6.5363	0.3863	0.0000	16.1934
Unmitigated	6.5363	0.3863	0.0000	16.1934

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse High Rise	32.2	6.5363	0.3863	0.0000	16.1934
Total		**6.5363**	**0.3863**	**0.0000**	**16.1934**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse High Rise	32.2	6.5363	0.3863	0.0000	16.1934
Total		**6.5363**	**0.3863**	**0.0000**	**16.1934**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX B-4
SDSU PROJECT OPERATION

SDSU

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse High Rise	70.00	Dwelling Unit	1.09	70,000.00	200
Apartments Mid Rise	2,010.00	Dwelling Unit	52.89	2,010,000.00	5749
Apartments High Rise	2,220.00	Dwelling Unit	35.81	2,220,000.00	6349
General Office Building	1,165.00	1000sqft	26.74	1,165,000.00	0
Medical Office Building	100.00	1000sqft	2.30	100,000.00	0
Research & Development	301.00	1000sqft	6.91	301,000.00	0
Hotel	400.00	Room	13.33	580,800.00	0
Regional Shopping Center	83.00	1000sqft	1.91	83,000.00	0
Supermarket	12.00	1000sqft	0.28	12,000.00	0
Health Club	25.00	1000sqft	0.57	25,000.00	0
Enclosed Parking with Elevator	11,270.00	Space	101.43	4,508,000.00	0
City Park	50.00	Acre	50.00	2,178,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2035
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	362.86	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - 60% RPS

Land Use -

Construction Phase - Construction analyzed separately.

Off-road Equipment - Construction analyzed separately.

Off-road Equipment - Construction analyzed separately.

Off-road Equipment - Construction analyzed separately.

Off-road Equipment - Construction analyzed separately.

Off-road Equipment - Construction analyzed separately.

Off-road Equipment - Construction analyzed separately.

Trips and VMT - Construction analyzed separately.

Vehicle Trips - Project trip rates and lengths derived from traffic study conducted by Fehr & Peers.

Woodstoves - No wood-burning fireplaces or woodstoves.

Area Coating - VOC content in accordance with SDAPCD Rule 67.0.1.

Energy Use -

Water And Wastewater - Indoor water use includes 20% reduction.

Solid Waste - 75% waste diversion.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblAreaCoating	Area_EF_Residential_Exterior	250	150
tblAreaCoating	Area_EF_Residential_Interior	250	150
tblConstructionPhase	NumDays	330.00	0.00
tblConstructionPhase	NumDays	4,650.00	0.00
tblConstructionPhase	NumDays	300.00	0.00
tblConstructionPhase	NumDays	465.00	0.00

tblConstructionPhase	NumDays	330.00	0.00
tblConstructionPhase	NumDays	180.00	0.00
tblConstructionPhase	PhaseEndDate	1/22/2044	10/17/2042
tblConstructionPhase	PhaseEndDate	7/12/2041	9/15/2023
tblConstructionPhase	PhaseEndDate	3/26/2021	2/2/2020
tblConstructionPhase	PhaseEndDate	9/15/2023	12/3/2021
tblConstructionPhase	PhaseEndDate	10/17/2042	7/12/2041
tblConstructionPhase	PhaseEndDate	12/3/2021	3/26/2021
tblFireplaces	NumberGas	1,221.00	111.00
tblFireplaces	NumberGas	1,105.50	100.50
tblFireplaces	NumberGas	38.50	3.50
tblFireplaces	NumberNoFireplace	222.00	2,109.00
tblFireplaces	NumberNoFireplace	201.00	1,909.50
tblFireplaces	NumberNoFireplace	7.00	66.50
tblFireplaces	NumberWood	777.00	0.00
tblFireplaces	NumberWood	703.50	0.00
tblFireplaces	NumberWood	24.50	0.00
tblGrading	AcresOfGrading	0.00	1,162.50
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	720.49	362.86
tblSolidWaste	SolidWasteGenerationRate	1,021.20	510.60
tblSolidWaste	SolidWasteGenerationRate	924.60	462.30
tblSolidWaste	SolidWasteGenerationRate	4.30	2.15
tblSolidWaste	SolidWasteGenerationRate	32.20	16.10
tblSolidWaste	SolidWasteGenerationRate	1,083.45	541.70
tblSolidWaste	SolidWasteGenerationRate	142.50	71.30
tblSolidWaste	SolidWasteGenerationRate	219.00	109.50
tblSolidWaste	SolidWasteGenerationRate	1,080.00	540.00
tblSolidWaste	SolidWasteGenerationRate	87.15	43.60
tblSolidWaste	SolidWasteGenerationRate	22.87	11.40
tblSolidWaste	SolidWasteGenerationRate	67.68	33.80
tblTripsAndVMT	VendorTripNumber	1,927.00	0.00
tblTripsAndVMT	WorkerTripNumber	6,690.00	0.00
tblTripsAndVMT	WorkerTripNumber	1,338.00	0.00
tblVehicleTrips	CC_TL	7.30	8.35
tblVehicleTrips	CC_TL	7.30	8.35

tblVehicleTrips	CC_TL	7.30	8.35
tblVehicleTrips	CC_TL	7.30	8.35
tblVehicleTrips	CC_TL	7.30	8.35
tblVehicleTrips	CC_TL	7.30	8.35
tblVehicleTrips	CC_TL	7.30	8.35
tblVehicleTrips	CC_TL	7.30	8.35
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tblVehicleTrips	CNW_TL	7.30	8.35
tblVehicleTrips	CNW_TL	7.30	8.35
tblVehicleTrips	CW_TL	9.50	8.35
tblVehicleTrips	CW_TL	9.50	8.35
tblVehicleTrips	CW_TL	9.50	8.35
tblVehicleTrips	CW_TL	9.50	8.35
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tblVehicleTrips	CW_TL	9.50	8.35
tblVehicleTrips	CW_TL	9.50	8.35
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00

tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	19.00	0.00
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tblVehicleTrips	DV_TP	30.00	0.00
tblVehicleTrips	DV_TP	35.00	0.00
tblVehicleTrips	DV_TP	15.00	0.00
tblVehicleTrips	DV_TP	30.00	0.00
tblVehicleTrips	HO_TL	7.50	8.35
tblVehicleTrips	HO_TL	7.50	8.35
tblVehicleTrips	HO_TL	7.50	8.35
tblVehicleTrips	HS_TL	7.30	8.35
tblVehicleTrips	HS_TL	7.30	8.35
tblVehicleTrips	HS_TL	7.30	8.35
tblVehicleTrips	HW_TL	10.80	8.35
tblVehicleTrips	HW_TL	10.80	8.35
tblVehicleTrips	HW_TL	10.80	8.35
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	9.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PB_TP	10.00	0.00
tblVehicleTrips	PB_TP	11.00	0.00

tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	36.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	66.00	100.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	PR_TP	77.00	100.00
tblVehicleTrips	PR_TP	52.00	100.00
tblVehicleTrips	PR_TP	58.00	100.00
tblVehicleTrips	PR_TP	60.00	100.00
tblVehicleTrips	PR_TP	54.00	100.00
tblVehicleTrips	PR_TP	82.00	100.00
tblVehicleTrips	PR_TP	34.00	100.00
tblVehicleTrips	ST_TR	4.98	4.43
tblVehicleTrips	ST_TR	6.39	4.43
tblVehicleTrips	ST_TR	22.75	102.99
tblVehicleTrips	ST_TR	4.31	4.43
tblVehicleTrips	ST_TR	2.46	3.19
tblVehicleTrips	ST_TR	20.87	10.33
tblVehicleTrips	ST_TR	8.19	8.04
tblVehicleTrips	ST_TR	8.96	11.59
tblVehicleTrips	ST_TR	49.97	131.12
tblVehicleTrips	ST_TR	1.90	1.07
tblVehicleTrips	ST_TR	177.59	223.00
tblVehicleTrips	SU_TR	3.65	4.43
tblVehicleTrips	SU_TR	5.86	4.43

tblVehicleTrips	SU_TR	16.74	102.99
tblVehicleTrips	SU_TR	3.43	4.43
tblVehicleTrips	SU_TR	1.05	3.19
tblVehicleTrips	SU_TR	26.73	10.33
tblVehicleTrips	SU_TR	5.95	8.04
tblVehicleTrips	SU_TR	1.55	11.59
tblVehicleTrips	SU_TR	25.24	131.12
tblVehicleTrips	SU_TR	1.11	1.07
tblVehicleTrips	SU_TR	166.44	223.00
tblVehicleTrips	WD_TR	4.20	4.92
tblVehicleTrips	WD_TR	6.65	4.92
tblVehicleTrips	WD_TR	1.89	41.00
tblVehicleTrips	WD_TR	4.18	4.92
tblVehicleTrips	WD_TR	11.03	14.06
tblVehicleTrips	WD_TR	32.93	32.80
tblVehicleTrips	WD_TR	8.17	8.20
tblVehicleTrips	WD_TR	36.13	47.12
tblVehicleTrips	WD_TR	42.70	107.04
tblVehicleTrips	WD_TR	8.11	6.56
tblVehicleTrips	WD_TR	102.24	133.80
tblWater	IndoorWaterUseRate	144,641,936.88	115,713,550.00
tblWater	IndoorWaterUseRate	130,959,591.50	104,767,673.00
tblWater	IndoorWaterUseRate	4,560,781.79	3,648,625.00
tblWater	IndoorWaterUseRate	207,059,816.41	165,647,853.00
tblWater	IndoorWaterUseRate	1,478,578.60	1,182,863.00
tblWater	IndoorWaterUseRate	10,146,708.00	8,117,366.00
tblWater	IndoorWaterUseRate	12,548,053.76	10,038,443.00

tblWater	IndoorWaterUseRate	6,148,019.28	4,918,415.00
tblWater	IndoorWaterUseRate	147,999,878.11	118,399,902.00
tblWater	IndoorWaterUseRate	1,479,218.58	1,183,375.00
tblWoodstoves	NumberCatalytic	111.00	0.00
tblWoodstoves	NumberCatalytic	100.50	0.00
tblWoodstoves	NumberCatalytic	3.50	0.00
tblWoodstoves	NumberNoncatalytic	111.00	0.00
tblWoodstoves	NumberNoncatalytic	100.50	0.00
tblWoodstoves	NumberNoncatalytic	3.50	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2023	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2041	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2042	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

2.1 Overall Construction

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					
2020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2023	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2041	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2042	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	32.7067	0.5144	32.0005	2.6300e-003		0.1893	0.1893		0.1893	0.1893	0.0000	221.7381	221.7381	0.0535	3.1000e-003	224.0010
Energy	0.5157	4.5943	3.2492	0.0281		0.3563	0.3563		0.3563	0.3563	0.0000	17,013.4224	17,013.4224	1.0497	0.2905	17,126.2323
Mobile	9.7743	46.2990	122.9399	0.5453	65.0025	0.2770	65.2795	17.4004	0.2575	17.6579	0.0000	50,845.3724	50,845.3724	2.4303	0.0000	50,906.1300
Waste						0.0000	0.0000		0.0000	0.0000	475.4962	0.0000	475.4962	28.1010	0.0000	1,178.0217
Water						0.0000	0.0000		0.0000	0.0000	169.2924	1,822.6534	1,991.9458	17.5336	0.4407	2,561.6165
Total	**42.9968**	**51.4077**	**158.1895**	**0.5760**	**65.0025**	**0.8226**	**65.8251**	**17.4004**	**0.8031**	**18.2035**	**644.7886**	**69,903.1863**	**70,547.9748**	**49.1681**	**0.7343**	**71,996.0014**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	32.7067	0.5144	32.0005	2.6300e-003		0.1893	0.1893		0.1893	0.1893	0.0000	221.7381	221.7381	0.0535	3.1000e-003	224.0010
Energy	0.5157	4.5943	3.2492	0.0281		0.3563	0.3563		0.3563	0.3563	0.0000	17,013.4224	17,013.4224	1.0497	0.2905	17,126.2323
Mobile	9.7743	46.2990	122.9399	0.5453	65.0025	0.2770	65.2795	17.4004	0.2575	17.6579	0.0000	50,845.3724	50,845.3724	2.4303	0.0000	50,906.1300
Waste						0.0000	0.0000		0.0000	0.0000	475.4962	0.0000	475.4962	28.1010	0.0000	1,178.0217
Water						0.0000	0.0000		0.0000	0.0000	169.2924	1,822.6534	1,991.9458	17.5336	0.4407	2,561.6165
Total	**42.9968**	**51.4077**	**158.1895**	**0.5760**	**65.0025**	**0.8226**	**65.8251**	**17.4004**	**0.8031**	**18.2035**	**644.7886**	**69,903.1863**	**70,547.9748**	**49.1681**	**0.7343**	**71,996.0014**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/3/2020	2/2/2020	5	0	
2	Site Preparation	Site Preparation	3/27/2021	3/26/2021	5	0	
3	Grading	Grading	12/4/2021	12/3/2021	5	0	
4	Building Construction	Building Construction	9/16/2023	9/15/2023	5	0	
5	Paving	Paving	7/13/2041	7/12/2041	5	0	
6	Architectural Coating	Architectural Coating	10/18/2042	10/17/2042	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 1162.5

Acres of Paving: 101.43

Residential Indoor: 8,707,500; Residential Outdoor: 2,902,500; Non-Residential Indoor: 3,400,200; Non-Residential Outdoor: 1,133,400; Striped Parking Area: 270,480 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	6.00	78	0.48
Demolition	Excavators	0	8.00	158	0.38
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Grading	Excavators	0	8.00	158	0.38
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Paving	Pavers	0	8.00	130	0.42
Paving	Rollers	0	8.00	80	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Grading	Graders	0	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Paving	Paving Equipment	0	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Scrapers	0	8.00	367	0.48
Building Construction	Welders	0	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	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2020

Unmitigated Construction Off-Site

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

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

3.2 Demolition - 2020

Mitigated Construction Off-Site

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

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

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

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

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

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

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

3.4 Grading - 2021

Unmitigated Construction On-Site

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

3.4 Grading - 2021

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

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

3.4 Grading - 2021

Mitigated Construction Off-Site

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

3.5 Building Construction - 2023

Unmitigated Construction On-Site

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

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

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

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

3.5 Building Construction - 2023

Mitigated Construction Off-Site

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

3.6 Paving - 2041

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2041

Unmitigated Construction Off-Site

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

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2041

Mitigated Construction Off-Site

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

3.7 Architectural Coating - 2042

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

3.7 Architectural Coating - 2042

Unmitigated Construction Off-Site

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

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

3.7 Architectural Coating - 2042

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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					
Mitigated	9.7743	46.2990	122.9399	0.5453	65.0025	0.2770	65.2795	17.4004	0.2575	17.6579	0.0000	50,845.3724	50,845.3724	2.4303	0.0000	50,906.1300
Unmitigated	9.7743	46.2990	122.9399	0.5453	65.0025	0.2770	65.2795	17.4004	0.2575	17.6579	0.0000	50,845.3724	50,845.3724	2.4303	0.0000	50,906.1300

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments High Rise	10,922.40	9,834.60	9834.60	32,271,669	32,271,669
Apartments Mid Rise	9,889.20	8,904.30	8904.30	29,218,944	29,218,944
City Park	2,050.00	5,149.50	5149.50	8,927,569	8,927,569
Condo/Townhouse High Rise	344.40	310.10	310.10	1,017,575	1,017,575
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Office Building	16,379.90	3,716.35	3716.35	38,810,617	38,810,617
Health Club	820.00	258.25	258.25	2,005,651	2,005,651
Hotel	3,280.00	3,216.00	3216.00	9,919,425	9,919,425
Medical Office Building	4,712.00	1,159.00	1159.00	11,242,767	11,242,767
Regional Shopping Center	8,884.32	10,882.96	10882.96	28,755,348	28,755,348
Research & Development	1,974.56	322.07	322.07	4,569,113	4,569,113
Supermarket	1,605.60	2,676.00	2676.00	5,812,977	5,812,977
Total	60,862.38	46,429.13	46,429.13	172,551,656	172,551,656

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	8.35	8.35	8.35	41.60	18.80	39.60	100	0	0
Apartments Mid Rise	8.35	8.35	8.35	41.60	18.80	39.60	100	0	0
City Park	8.35	8.35	8.35	33.00	48.00	19.00	100	0	0
Condo/Townhouse High Rise	8.35	8.35	8.35	41.60	18.80	39.60	100	0	0
Enclosed Parking with Elevator	8.35	8.35	8.35	0.00	0.00	0.00	100	0	0
General Office Building	8.35	8.35	8.35	33.00	48.00	19.00	100	0	0
Health Club	8.35	8.35	8.35	16.90	64.10	19.00	100	0	0
Hotel	8.35	8.35	8.35	19.40	61.60	19.00	100	0	0
Medical Office Building	8.35	8.35	8.35	29.60	51.40	19.00	100	0	0
Regional Shopping Center	8.35	8.35	8.35	16.30	64.70	19.00	100	0	0
Research & Development	8.35	8.35	8.35	33.00	48.00	19.00	100	0	0
Supermarket	8.35	8.35	8.35	6.50	74.50	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments High Rise	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
Apartments Mid Rise	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
City Park	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
Condo/Townhouse High Rise	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
Enclosed Parking with Elevator	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
General Office Building	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
Health Club	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
Hotel	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
Medical Office Building	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
Regional Shopping Center	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
Research & Development	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
Supermarket	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	11,909.6908	11,909.6908	0.9518	0.1969	11,992.1718
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	11,909.6908	11,909.6908	0.9518	0.1969	11,992.1718
NaturalGas Mitigated	0.5157	4.5943	3.2492	0.0281		0.3563	0.3563		0.3563	0.3563	0.0000	5,103.7316	5,103.7316	0.0978	0.0936	5,134.0605
NaturalGas Unmitigated	0.5157	4.5943	3.2492	0.0281		0.3563	0.3563		0.3563	0.3563	0.0000	5,103.7316	5,103.7316	0.0978	0.0936	5,134.0605

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	1.64918e+007	0.0889	0.7599	0.3234	4.8500e-003		0.0614	0.0614		0.0614	0.0614	0.0000	880.0654	880.0654	0.0169	0.0161	885.2952
Apartments Mid Rise	1.49318e+007	0.0805	0.6880	0.2928	4.3900e-003		0.0556	0.0556		0.0556	0.0556	0.0000	796.8160	796.8160	0.0153	0.0146	801.5511
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	520012	2.8000e-003	0.0240	0.0102	1.5000e-004		1.9400e-003	1.9400e-003		1.9400e-003	1.9400e-003	0.0000	27.7498	27.7498	5.3000e-004	5.1000e-004	27.9147
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	2.35214e+007	0.1268	1.1530	0.9685	6.9200e-003		0.0876	0.0876		0.0876	0.0876	0.0000	1,255.1888	1,255.1888	0.0241	0.0230	1,262.6478
Health Club	289000	1.5600e-003	0.0142	0.0119	9.0000e-005		1.0800e-003	1.0800e-003		1.0800e-003	1.0800e-003	0.0000	15.4221	15.4221	3.0000e-004	2.8000e-004	15.5138
Hotel	3.39013e+007	0.1828	1.6618	1.3959	9.9700e-003		0.1263	0.1263		0.1263	0.1263	0.0000	1,809.1023	1,809.1023	0.0347	0.0332	1,819.8529
Medical Office Building	2.019e+006	0.0109	0.0990	0.0831	5.9000e-004		7.5200e-003	7.5200e-003		7.5200e-003	7.5200e-003	0.0000	107.7415	107.7415	2.0700e-003	1.9800e-003	108.3818
Regional Shopping Center	185090	1.0000e-003	9.0700e-003	7.6200e-003	5.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004	0.0000	9.8771	9.8771	1.9000e-004	1.8000e-004	9.9358
Research & Development	3.47956e+006	0.0188	0.1706	0.1433	1.0200e-003		0.0130	0.0130		0.0130	0.0130	0.0000	185.6826	185.6826	3.5600e-003	3.4000e-003	186.7860
Supermarket	301440	1.6300e-003	0.0148	0.0124	9.0000e-005		1.1200e-003	1.1200e-003		1.1200e-003	1.1200e-003	0.0000	16.0860	16.0860	3.1000e-004	2.9000e-004	16.1816
Total		**0.5157**	**4.5943**	**3.2492**	**0.0281**		**0.3563**	**0.3563**		**0.3563**	**0.3563**	**0.0000**	**5,103.7316**	**5,103.7316**	**0.0978**	**0.0936**	**5,134.0605**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments High Rise	1.64918e+007	0.0889	0.7599	0.3234	4.8500e-003		0.0614	0.0614		0.0614	0.0614	0.0000	880.0654	880.0654	0.0169	0.0161	885.2952
Apartments Mid Rise	1.49318e+007	0.0805	0.6880	0.2928	4.3900e-003		0.0556	0.0556		0.0556	0.0556	0.0000	796.8160	796.8160	0.0153	0.0146	801.5511
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	520012	2.8000e-003	0.0240	0.0102	1.5000e-004		1.9400e-003	1.9400e-003		1.9400e-003	1.9400e-003	0.0000	27.7498	27.7498	5.3000e-004	5.1000e-004	27.9147
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Office Building	2.35214e+007	0.1268	1.1530	0.9685	6.9200e-003		0.0876	0.0876		0.0876	0.0876	0.0000	1,255.1888	1,255.1888	0.0241	0.0230	1,262.6478
Health Club	289000	1.5600e-003	0.0142	0.0119	9.0000e-005		1.0800e-003	1.0800e-003		1.0800e-003	1.0800e-003	0.0000	15.4221	15.4221	3.0000e-004	2.8000e-004	15.5138
Hotel	3.39013e+007	0.1828	1.6618	1.3959	9.9700e-003		0.1263	0.1263		0.1263	0.1263	0.0000	1,809.1023	1,809.1023	0.0347	0.0332	1,819.8529
Medical Office Building	2.019e+006	0.0109	0.0990	0.0831	5.9000e-004		7.5200e-003	7.5200e-003		7.5200e-003	7.5200e-003	0.0000	107.7415	107.7415	2.0700e-003	1.9800e-003	108.3818
Regional Shopping Center	185090	1.0000e-003	9.0700e-003	7.6200e-003	5.0000e-005		6.9000e-004	6.9000e-004		6.9000e-004	6.9000e-004	0.0000	9.8771	9.8771	1.9000e-004	1.8000e-004	9.9358
Research & Development	3.47956e+006	0.0188	0.1706	0.1433	1.0200e-003		0.0130	0.0130		0.0130	0.0130	0.0000	185.6826	185.6826	3.5600e-003	3.4000e-003	186.7860
Supermarket	301440	1.6300e-003	0.0148	0.0124	9.0000e-005		1.1200e-003	1.1200e-003		1.1200e-003	1.1200e-003	0.0000	16.0860	16.0860	3.1000e-004	2.9000e-004	16.1816
Total		**0.5157**	**4.5943**	**3.2492**	**0.0281**		**0.3563**	**0.3563**		**0.3563**	**0.3563**	**0.0000**	**5,103.7316**	**5,103.7316**	**0.0978**	**0.0936**	**5,134.0605**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	8.89094e +006	1,463.365 3	0.1170	0.0242	1,473.499 9
Apartments Mid Rise	8.04991e +006	1,324.938 8	0.1059	0.0219	1,334.1147
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	298521	49.1338	3.9300e-003	8.1000e-004	49.4741
Enclosed Parking with Elevator	2.64169e +007	4,347.968 2	0.3475	0.0719	4,378.080 2
General Office Building	1.56576e +007	2,577.092 6	0.2060	0.0426	2,594.940 4
Health Club	207750	34.1937	2.7300e-003	5.7000e-004	34.4305
Hotel	7.52136e +006	1,237.944 6	0.0989	0.0205	1,246.518 0
Medical Office Building	1.344e +006	221.2097	0.0177	3.6600e-003	222.7417
Regional Shopping Center	1.04248e +006	171.5823	0.0137	2.8400e-003	172.7706
Research & Development	2.50131e +006	411.6919	0.0329	6.8100e-003	414.5431
Supermarket	428760	70.5698	5.6400e-003	1.1700e-003	71.0586
Total		**11,909.69 08**	**0.9518**	**0.1969**	**11,992.17 18**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	8.89094e+006	1,463.3653	0.1170	0.0242	1,473.4999
Apartments Mid Rise	8.04991e+006	1,324.9388	0.1059	0.0219	1,334.1147
City Park	0	0.0000	0.0000	0.0000	0.0000
Condo/Townhouse High Rise	298521	49.1338	3.9300e-003	8.1000e-004	49.4741
Enclosed Parking with Elevator	2.64169e+007	4,347.9682	0.3475	0.0719	4,378.0802
General Office Building	1.56576e+007	2,577.0926	0.2060	0.0426	2,594.9404
Health Club	207750	34.1937	2.7300e-003	5.7000e-004	34.4305
Hotel	7.52136e+006	1,237.9446	0.0989	0.0205	1,246.5180
Medical Office Building	1.344e+006	221.2097	0.0177	3.6600e-003	222.7417
Regional Shopping Center	1.04248e+006	171.5823	0.0137	2.8400e-003	172.7706
Research & Development	2.50131e+006	411.6919	0.0329	6.8100e-003	414.5431
Supermarket	428760	70.5698	5.6400e-003	1.1700e-003	71.0586
Total		**11,909.6908**	**0.9518**	**0.1969**	**11,992.1718**

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	32.7067	0.5144	32.0005	2.6300e-003		0.1893	0.1893		0.1893	0.1893	0.0000	221.7381	221.7381	0.0535	3.1000e-003	224.0010
Unmitigated	32.7067	0.5144	32.0005	2.6300e-003		0.1893	0.1893		0.1893	0.1893	0.0000	221.7381	221.7381	0.0535	3.1000e-003	224.0010

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	5.7686					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	25.9585					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0171	0.1462	0.0622	9.3000e-004		0.0118	0.0118		0.0118	0.0118	0.0000	169.3447	169.3447	3.2500e-003	3.1000e-003	170.3510
Landscaping	0.9625	0.3682	31.9383	1.7000e-003		0.1775	0.1775		0.1775	0.1775	0.0000	52.3934	52.3934	0.0503	0.0000	53.6500
Total	**32.7067**	**0.5144**	**32.0005**	**2.6300e-003**		**0.1893**	**0.1893**		**0.1893**	**0.1893**	**0.0000**	**221.7381**	**221.7381**	**0.0535**	**3.1000e-003**	**224.0010**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	5.7686					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	25.9585					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0171	0.1462	0.0622	9.3000e-004		0.0118	0.0118		0.0118	0.0118	0.0000	169.3447	169.3447	3.2500e-003	3.1000e-003	170.3510
Landscaping	0.9625	0.3682	31.9383	1.7000e-003		0.1775	0.1775		0.1775	0.1775	0.0000	52.3934	52.3934	0.0503	0.0000	53.6500
Total	**32.7067**	**0.5144**	**32.0005**	**2.6300e-003**		**0.1893**	**0.1893**		**0.1893**	**0.1893**	**0.0000**	**221.7381**	**221.7381**	**0.0535**	**3.1000e-003**	**224.0010**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1,991.945 8	17.5336	0.4407	2,561.616 5
Unmitigated	1,991.945 8	17.5336	0.4407	2,561.616 5

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	115.714 / 91.1873	451.4453	3.8037	0.0959	575.1118
Apartments Mid Rise	104.768 / 82.5615	408.7410	3.4439	0.0868	520.7093
City Park	0 / 59.5741	108.9372	8.7100e-003	1.8000e-003	109.6916
Condo/Townhouse High Rise	3.64863 / 2.87528	14.2348	0.1199	3.0200e-003	18.1342
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	165.648 / 126.908	639.6212	5.4446	0.1372	816.6080
Health Club	1.18286 / 0.906226	4.5674	0.0389	9.8000e-004	5.8313
Hotel	8.11737 / 1.12741	22.0335	0.2661	6.5700e-003	30.6420
Medical Office Building	10.0384 / 2.39011	29.0690	0.3292	8.1500e-003	39.7275
Regional Shopping Center	4.91842 / 3.76814	18.9916	0.1617	4.0700e-003	24.2467
Research & Development	118.4 / 0	291.3096	3.8783	0.0953	416.6655
Supermarket	1.18338 / 0.045749	2.9952	0.0388	9.5000e-004	4.2487
Total		**1,991.9458**	**17.5336**	**0.4407**	**2,561.6165**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	115.714 / 91.1873	451.4453	3.8037	0.0959	575.1118
Apartments Mid Rise	104.768 / 82.5615	408.7410	3.4439	0.0868	520.7093
City Park	0 / 59.5741	108.9372	8.7100e-003	1.8000e-003	109.6916
Condo/Townhouse High Rise	3.64863 / 2.87528	14.2348	0.1199	3.0200e-003	18.1342
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Office Building	165.648 / 126.908	639.6212	5.4446	0.1372	816.6080
Health Club	1.18286 / 0.906226	4.5674	0.0389	9.8000e-004	5.8313
Hotel	8.11737 / 1.12741	22.0335	0.2661	6.5700e-003	30.6420
Medical Office Building	10.0384 / 2.39011	29.0690	0.3292	8.1500e-003	39.7275
Regional Shopping Center	4.91842 / 3.76814	18.9916	0.1617	4.0700e-003	24.2467
Research & Development	118.4 / 0	291.3096	3.8783	0.0953	416.6655
Supermarket	1.18338 / 0.045749	2.9952	0.0388	9.5000e-004	4.2487
Total		**1,991.9458**	**17.5336**	**0.4407**	**2,561.6165**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	475.4962	28.1010	0.0000	1,178.021 7
Unmitigated	475.4962	28.1010	0.0000	1,178.021 7

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	510.6	103.6472	6.1254	0.0000	256.7815
Apartments Mid Rise	462.3	93.8427	5.5460	0.0000	232.4914
City Park	2.15	0.4364	0.0258	0.0000	1.0812
Condo/Townhouse High Rise	16.1	3.2682	0.1931	0.0000	8.0967
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	541.7	109.9602	6.4985	0.0000	272.4218
Health Club	71.3	14.4733	0.8553	0.0000	35.8569
Hotel	109.5	22.2275	1.3136	0.0000	55.0677
Medical Office Building	540	109.6151	6.4781	0.0000	271.5668
Regional Shopping Center	43.6	8.8504	0.5230	0.0000	21.9265
Research & Development	11.4	2.3141	0.1368	0.0000	5.7331
Supermarket	33.8	6.8611	0.4055	0.0000	16.9981
Total		**475.4962**	**28.1010**	**0.0000**	**1,178.0217**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	510.6	103.6472	6.1254	0.0000	256.7815
Apartments Mid Rise	462.3	93.8427	5.5460	0.0000	232.4914
City Park	2.15	0.4364	0.0258	0.0000	1.0812
Condo/Townhouse High Rise	16.1	3.2682	0.1931	0.0000	8.0967
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Office Building	541.7	109.9602	6.4985	0.0000	272.4218
Health Club	71.3	14.4733	0.8553	0.0000	35.8569
Hotel	109.5	22.2275	1.3136	0.0000	55.0677
Medical Office Building	540	109.6151	6.4781	0.0000	271.5668
Regional Shopping Center	43.6	8.8504	0.5230	0.0000	21.9265
Research & Development	11.4	2.3141	0.1368	0.0000	5.7331
Supermarket	33.8	6.8611	0.4055	0.0000	16.9981
Total		**475.4962**	**28.1010**	**0.0000**	**1,178.0217**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

SDSU

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	300.00	Dwelling Unit	7.89	300,000.00	858
City Park	6.00	Acre	6.00	261,360.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2035
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	362.86	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - 60% RPS

Land Use -

Construction Phase - Construction analyzed separately.

Off-road Equipment - Construction analyzed separately.

Off-road Equipment - Construction analyzed separately.

Off-road Equipment - Construction analyzed separately.

Off-road Equipment - Construction analyzed separately.

Off-road Equipment - Construction analyzed separately.

Off-road Equipment - Construction analyzed separately.

Grading - Construction analyzed separately.

Trips and VMT - Construction analyzed separately.

Architectural Coating - Construction analyzed separately.

Vehicle Trips - Project trip rates and lengths derived from traffic study conducted by Fehr & Peers.

Woodstoves - No wood-burning fireplaces or woodstoves.

Area Coating - VOC content in accordance with SDAPCD Rule 67.0.1.

Energy Use -

Water And Wastewater - Indoor water use includes 20% reduction.

Solid Waste - 75% waste diversion

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Residential_Exterior	202,500.00	0.00
tblArchitecturalCoating	ConstArea_Residential_Interior	607,500.00	0.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblAreaCoating	Area_EF_Residential_Exterior	250	150
tblAreaCoating	Area_EF_Residential_Interior	250	150
tblConstructionPhase	NumDays	20.00	0.00

tblConstructionPhase	NumDays	300.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	30.00	0.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	10.00	0.00
tblConstructionPhase	PhaseEndDate	8/13/2021	7/16/2021
tblConstructionPhase	PhaseEndDate	6/18/2021	4/24/2020
tblConstructionPhase	PhaseEndDate	2/28/2020	2/2/2020
tblConstructionPhase	PhaseEndDate	4/24/2020	3/13/2020
tblConstructionPhase	PhaseEndDate	7/16/2021	6/18/2021
tblConstructionPhase	PhaseEndDate	3/13/2020	2/28/2020
tblFireplaces	NumberGas	165.00	15.00
tblFireplaces	NumberNoFireplace	30.00	285.00
tblFireplaces	NumberWood	105.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	720.49	362.86
tblSolidWaste	SolidWasteGenerationRate	138.00	69.00
tblSolidWaste	SolidWasteGenerationRate	0.52	0.26
tblTripsAndVMT	VendorTripNumber	75.00	0.00
tblTripsAndVMT	WorkerTripNumber	326.00	0.00
tblTripsAndVMT	WorkerTripNumber	65.00	0.00
tblVehicleTrips	CC_TL	7.30	8.35
tblVehicleTrips	CNW_TL	7.30	8.35
tblVehicleTrips	CW_TL	9.50	8.35
tblVehicleTrips	DV_TP	11.00	0.00
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	HO_TL	7.50	8.35
tblVehicleTrips	HS_TL	7.30	8.35
tblVehicleTrips	HW_TL	10.80	8.35
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PR_TP	86.00	100.00
tblVehicleTrips	PR_TP	66.00	100.00
tblVehicleTrips	ST_TR	6.39	3.28
tblVehicleTrips	ST_TR	22.75	10.33
tblVehicleTrips	SU_TR	5.86	3.28

tblVehicleTrips	SU_TR	16.74	10.33
tblVehicleTrips	WD_TR	6.65	3.61
tblVehicleTrips	WD_TR	1.89	4.10
tblWater	IndoorWaterUseRate	19,546,207.69	15,636,966.00
tblWoodstoves	NumberCatalytic	15.00	0.00
tblWoodstoves	NumberNoncatalytic	15.00	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2021	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.5233	0.0358	2.2241	1.8000e-004		0.0132	0.0132		0.0132	0.0132	0.0000	15.4535	15.4535	3.6900e-003	2.2000e-004	15.6103
Energy	0.0120	0.1027	0.0437	6.6000e-004		8.3000e-003	8.3000e-003		8.3000e-003	8.3000e-003	0.0000	316.6798	316.6798	0.0181	5.4500e-003	318.7561
Mobile	0.1878	0.8894	2.3618	0.0105	1.2488	5.3200e-003	1.2541	0.3343	4.9500e-003	0.3392	0.0000	976.7807	976.7807	0.0467	0.0000	977.9479
Waste						0.0000	0.0000		0.0000	0.0000	14.0592	0.0000	14.0592	0.8309	0.0000	34.8310
Water						0.0000	0.0000		0.0000	0.0000	4.9609	69.1177	74.0786	0.5151	0.0132	90.8808
Total	**1.7230**	**1.0279**	**4.6296**	**0.0113**	**1.2488**	**0.0268**	**1.2756**	**0.3343**	**0.0264**	**0.3607**	**19.0200**	**1,378.0317**	**1,397.0518**	**1.4144**	**0.0188**	**1,438.0261**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.5233	0.0358	2.2241	1.8000e-004		0.0132	0.0132		0.0132	0.0132	0.0000	15.4535	15.4535	3.6900e-003	2.2000e-004	15.6103
Energy	0.0120	0.1027	0.0437	6.6000e-004		8.3000e-003	8.3000e-003		8.3000e-003	8.3000e-003	0.0000	316.6798	316.6798	0.0181	5.4500e-003	318.7561
Mobile	0.1878	0.8894	2.3618	0.0105	1.2488	5.3200e-003	1.2541	0.3343	4.9500e-003	0.3392	0.0000	976.7807	976.7807	0.0467	0.0000	977.9479
Waste						0.0000	0.0000		0.0000	0.0000	14.0592	0.0000	14.0592	0.8309	0.0000	34.8310
Water						0.0000	0.0000		0.0000	0.0000	4.9609	69.1177	74.0786	0.5151	0.0132	90.8808
Total	**1.7230**	**1.0279**	**4.6296**	**0.0113**	**1.2488**	**0.0268**	**1.2756**	**0.3343**	**0.0264**	**0.3607**	**19.0200**	**1,378.0317**	**1,397.0518**	**1.4144**	**0.0188**	**1,438.0261**

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

3.0 Construction Detail

Construction Phase

SDSU - San Diego County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/3/2020	2/2/2020	5	0	
2	Site Preparation	Site Preparation	2/29/2020	2/28/2020	5	0	
3	Grading	Grading	3/14/2020	3/13/2020	5	0	
4	Building Construction	Building Construction	4/25/2020	4/24/2020	5	0	
5	Paving	Paving	6/19/2021	6/18/2021	5	0	
6	Architectural Coating	Architectural Coating	7/17/2021	7/16/2021	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	6.00	78	0.48
Demolition	Excavators	0	8.00	158	0.38
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Grading	Excavators	0	8.00	158	0.38
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Paving	Pavers	0	8.00	130	0.42
Paving	Rollers	0	8.00	80	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Grading	Graders	0	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Paving	Paving Equipment	0	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Scrapers	0	8.00	367	0.48
Building Construction	Welders	0	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	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2020

Unmitigated Construction Off-Site

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

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

3.2 Demolition - 2020

Mitigated Construction Off-Site

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

3.3 Site Preparation - 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					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

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

3.3 Site Preparation - 2020

Mitigated Construction Off-Site

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

3.4 Grading - 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					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2020

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

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

3.4 Grading - 2020

Mitigated Construction Off-Site

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

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

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

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

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

3.5 Building Construction - 2020

Mitigated Construction Off-Site

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

3.6 Paving - 2021

Unmitigated Construction On-Site

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

3.6 Paving - 2021

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2021

Mitigated Construction Off-Site

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

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

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

3.7 Architectural Coating - 2021

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2021

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1878	0.8894	2.3618	0.0105	1.2488	5.3200e-003	1.2541	0.3343	4.9500e-003	0.3392	0.0000	976.7807	976.7807	0.0467	0.0000	977.9479
Unmitigated	0.1878	0.8894	2.3618	0.0105	1.2488	5.3200e-003	1.2541	0.3343	4.9500e-003	0.3392	0.0000	976.7807	976.7807	0.0467	0.0000	977.9479

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,083.00	984.00	984.00	3,207,564	3,207,564
City Park	24.60	61.98	61.98	107,292	107,292
Total	1,107.60	1,045.98	1,045.98	3,314,857	3,314,857

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	8.35	8.35	8.35	41.60	18.80	39.60	100	0	0
City Park	8.35	8.35	8.35	33.00	48.00	19.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
City Park	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	197.7521	197.7521	0.0158	3.2700e-003	199.1216
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	197.7521	197.7521	0.0158	3.2700e-003	199.1216
NaturalGas Mitigated	0.0120	0.1027	0.0437	6.6000e-004		8.3000e-003	8.3000e-003		8.3000e-003	8.3000e-003	0.0000	118.9278	118.9278	2.2800e-003	2.1800e-003	119.6345
NaturalGas Unmitigated	0.0120	0.1027	0.0437	6.6000e-004		8.3000e-003	8.3000e-003		8.3000e-003	8.3000e-003	0.0000	118.9278	118.9278	2.2800e-003	2.1800e-003	119.6345

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	2.22862e +006	0.0120	0.1027	0.0437	6.6000e-004		8.3000e-003	8.3000e-003		8.3000e-003	8.3000e-003	0.0000	118.9278	118.9278	2.2800e-003	2.1800e-003	119.6345
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0120**	**0.1027**	**0.0437**	**6.6000e-004**		**8.3000e-003**	**8.3000e-003**		**8.3000e-003**	**8.3000e-003**	**0.0000**	**118.9278**	**118.9278**	**2.2800e-003**	**2.1800e-003**	**119.6345**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	2.22862e +006	0.0120	0.1027	0.0437	6.6000e-004		8.3000e-003	8.3000e-003		8.3000e-003	8.3000e-003	0.0000	118.9278	118.9278	2.2800e-003	2.1800e-003	119.6345
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0120**	**0.1027**	**0.0437**	**6.6000e-004**		**8.3000e-003**	**8.3000e-003**		**8.3000e-003**	**8.3000e-003**	**0.0000**	**118.9278**	**118.9278**	**2.2800e-003**	**2.1800e-003**	**119.6345**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.20148e +006	197.7521	0.0158	3.2700e-003	199.1216
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		**197.7521**	**0.0158**	**3.2700e-003**	**199.1216**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.20148e +006	197.7521	0.0158	3.2700e-003	199.1216
City Park	0	0.0000	0.0000	0.0000	0.0000
Total		**197.7521**	**0.0158**	**3.2700e-003**	**199.1216**

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	1.5233	0.0358	2.2241	1.8000e-004		0.0132	0.0132		0.0132	0.0132	0.0000	15.4535	15.4535	3.6900e-003	2.2000e-004	15.6103
Unmitigated	1.5233	0.0358	2.2241	1.8000e-004		0.0132	0.0132		0.0132	0.0132	0.0000	15.4535	15.4535	3.6900e-003	2.2000e-004	15.6103

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2816					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.1741					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.1900e-003	0.0102	4.3400e-003	7.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	11.8148	11.8148	2.3000e-004	2.2000e-004	11.8850
Landscaping	0.0664	0.0256	2.2198	1.2000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	3.6388	3.6388	3.4600e-003	0.0000	3.7254
Total	**1.5233**	**0.0358**	**2.2241**	**1.9000e-004**		**0.0132**	**0.0132**		**0.0132**	**0.0132**	**0.0000**	**15.4535**	**15.4535**	**3.6900e-003**	**2.2000e-004**	**15.6103**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2816					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.1741					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	1.1900e-003	0.0102	4.3400e-003	7.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	11.8148	11.8148	2.3000e-004	2.2000e-004	11.8850
Landscaping	0.0664	0.0256	2.2198	1.2000e-004		0.0124	0.0124		0.0124	0.0124	0.0000	3.6388	3.6388	3.4600e-003	0.0000	3.7254
Total	**1.5233**	**0.0358**	**2.2241**	**1.9000e-004**		**0.0132**	**0.0132**		**0.0132**	**0.0132**	**0.0000**	**15.4535**	**15.4535**	**3.6900e-003**	**2.2000e-004**	**15.6103**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	74.0786	0.5151	0.0132	90.8808
Unmitigated	74.0786	0.5151	0.0132	90.8808

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	15.637 / 12.3226	61.0061	0.5140	0.0130	77.7178
City Park	0 / 7.14889	13.0725	1.0400e-003	2.2000e-004	13.1630
Total		**74.0786**	**0.5151**	**0.0132**	**90.8808**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	15.637 / 12.3226	61.0061	0.5140	0.0130	77.7178
City Park	0 / 7.14889	13.0725	1.0400e-003	2.2000e-004	13.1630
Total		**74.0786**	**0.5151**	**0.0132**	**90.8808**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	14.0592	0.8309	0.0000	34.8310
Unmitigated	14.0592	0.8309	0.0000	34.8310

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	69	14.0064	0.8278	0.0000	34.7002
City Park	0.26	0.0528	3.1200e-003	0.0000	0.1308
Total		**14.0592**	**0.8309**	**0.0000**	**34.8310**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	69	14.0064	0.8278	0.0000	34.7002
City Park	0.26	0.0528	3.1200e-003	0.0000	0.1308
Total		**14.0592**	**0.8309**	**0.0000**	**34.8310**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

SDSU

San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	27.60	Acre	27.60	1,202,256.00	0
User Defined Recreational	14.82	User Defined Unit	14.82	645,559.20	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2035
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	362.86	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

SDSU - San Diego County, Annual

Project Characteristics - 60% RPS

Land Use - Stadium-specific land use.

Construction Phase - Construction analyzed separately.

Off-road Equipment - Construction analyzed separately.

Off-road Equipment - Construction analyzed separately.

Off-road Equipment - Construction analyzed separately.

Off-road Equipment - Construction analyzed separately.

Off-road Equipment - Construction analyzed separately.

Off-road Equipment - Construction analyzed separately.

Vehicle Trips - Project trip rates and lengths derived from traffic study conducted by Fehr & Peers.

Area Coating - VOC content in accordance with SDAPCD Rule 67.0.1

Energy Use - Stadium-specific energy use.

Water And Wastewater - No reduction to indoor water use.

Solid Waste - 75% waste diversion.

Land Use Change -

Sequestration -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblAreaCoating	Area_EF_Residential_Exterior	250	150
tblAreaCoating	Area_EF_Residential_Interior	250	150
tblConstructionPhase	NumDays	50.00	0.00
tblConstructionPhase	NumDays	30.00	0.00
tblConstructionPhase	NumDays	75.00	0.00
tblConstructionPhase	NumDays	740.00	0.00
tblConstructionPhase	NumDays	55.00	0.00

tblConstructionPhase	NumDays	55.00	0.00
tblEnergyUse	LightingElect	0.00	2.82
tblEnergyUse	NT24E	0.00	4.25
tblEnergyUse	NT24NG	0.00	4.03
tblEnergyUse	T24E	0.00	1.20
tblEnergyUse	T24NG	0.00	2.39
tblGrading	AcresOfGrading	0.00	187.50
tblLandUse	LandUseSquareFeet	0.00	645,559.20
tblLandUse	LotAcreage	0.00	14.82
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	720.49	362.86
tblSequestration	NumberOfNewTrees	0.00	616.00
tblSolidWaste	SolidWasteGenerationRate	2.37	1.19
tblSolidWaste	SolidWasteGenerationRate	0.00	2,066.30
tblTripsAndVMT	WorkerTripNumber	0.00	15.00
tblTripsAndVMT	WorkerTripNumber	0.00	18.00
tblTripsAndVMT	WorkerTripNumber	0.00	20.00
tblTripsAndVMT	WorkerTripNumber	0.00	15.00
tblVehicleTrips	CC_TL	7.30	8.35
tblVehicleTrips	CC_TL	7.30	15.00
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	CNW_TL	7.30	8.35
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CW_TL	9.50	8.35
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	DV_TP	28.00	0.00
tblVehicleTrips	PB_TP	6.00	0.00
tblVehicleTrips	PR_TP	66.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	0.00	112.58
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	0.00	112.58
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	0.00	112.58
tblWater	IndoorWaterUseRate	0.00	16,104,033.00

tblWater	OutdoorWaterUseRate	0.00	1,027,917.00

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					
2020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2023	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2023	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.9814	0.0000	3.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.6000e-004	7.6000e-004	0.0000	0.0000	8.1000e-004
Energy	0.0223	0.2031	0.1706	1.2200e-003		0.0154	0.0154		0.0154	0.0154	0.0000	1,100.2978	1,100.2978	0.0745	0.0186	1,107.7006
Mobile	0.4041	1.8481	5.9199	0.0280	3.4316	0.0139	3.4455	0.9186	0.0129	0.9315	0.0000	2,608.5025	2,608.5025	0.1194	0.0000	2,611.4884
Waste						0.0000	0.0000		0.0000	0.0000	419.6818	0.0000	419.6818	24.8025	0.0000	1,039.7439
Water						0.0000	0.0000		0.0000	0.0000	5.1091	96.5261	101.6351	0.5325	0.0140	119.1148
Total	**3.4079**	**2.0512**	**6.0910**	**0.0292**	**3.4316**	**0.0293**	**3.4609**	**0.9186**	**0.0283**	**0.9469**	**424.7909**	**3,805.3272**	**4,230.1180**	**25.5289**	**0.0326**	**4,878.0485**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.9814	0.0000	3.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.6000e-004	7.6000e-004	0.0000	0.0000	8.1000e-004
Energy	0.0223	0.2031	0.1706	1.2200e-003		0.0154	0.0154		0.0154	0.0154	0.0000	1,100.2978	1,100.2978	0.0745	0.0186	1,107.7006
Mobile	0.4041	1.8481	5.9199	0.0280	3.4316	0.0139	3.4455	0.9186	0.0129	0.9315	0.0000	2,608.5025	2,608.5025	0.1194	0.0000	2,611.4884
Waste						0.0000	0.0000		0.0000	0.0000	419.6818	0.0000	419.6818	24.8025	0.0000	1,039.7439
Water						0.0000	0.0000		0.0000	0.0000	5.1091	96.5261	101.6351	0.5325	0.0140	119.1148
Total	**3.4079**	**2.0512**	**6.0910**	**0.0292**	**3.4316**	**0.0293**	**3.4609**	**0.9186**	**0.0283**	**0.9469**	**424.7909**	**3,805.3272**	**4,230.1180**	**25.5289**	**0.0326**	**4,878.0485**

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

2.3 Vegetation

Vegetation

	CO2e
Category	MT
New Trees	436.1280
Vegetation Land Change	354.7390
Total	**790.8670**

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	2/3/2020	2/2/2020	5	0	
2	Site Preparation	Site Preparation	4/11/2020	4/10/2020	5	0	
3	Grading	Grading	5/23/2020	5/22/2020	5	0	
4	Building Construction	Building Construction	9/5/2020	9/4/2020	5	0	
5	Paving	Paving	7/8/2023	7/7/2023	5	0	
6	Architectural Coating	Architectural Coating	9/23/2023	9/22/2023	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 187.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 968,339; Non-Residential Outdoor: 322,780; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Excavators	0	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Scrapers	0	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Paving	Pavers	0	8.00	130	0.42
Paving	Paving Equipment	0	8.00	132	0.36
Paving	Rollers	0	8.00	80	0.38
Architectural Coating	Air Compressors	0	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	0	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	0	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	0	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	0	776.00	303.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	0	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	155.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2020

Unmitigated Construction Off-Site

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

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

3.2 Demolition - 2020

Mitigated Construction Off-Site

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

3.3 Site Preparation - 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					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

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

3.3 Site Preparation - 2020

Mitigated Construction Off-Site

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

3.4 Grading - 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					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2020

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

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

3.4 Grading - 2020

Mitigated Construction Off-Site

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

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

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

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

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

3.5 Building Construction - 2020

Mitigated Construction Off-Site

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

3.6 Paving - 2023

Unmitigated Construction On-Site

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

3.6 Paving - 2023

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2023

Mitigated Construction Off-Site

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

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

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

3.7 Architectural Coating - 2023

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.7 Architectural Coating - 2023

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4041	1.8481	5.9199	0.0280	3.4316	0.0139	3.4455	0.9186	0.0129	0.9315	0.0000	2,608.5025	2,608.5025	0.1194	0.0000	2,611.4884
Unmitigated	0.4041	1.8481	5.9199	0.0280	3.4316	0.0139	3.4455	0.9186	0.0129	0.9315	0.0000	2,608.5025	2,608.5025	0.1194	0.0000	2,611.4884

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
User Defined Recreational	1,668.37	1,668.37	1668.37	9,109,325	9,109,325
Total	1,668.37	1,668.37	1,668.37	9,109,325	9,109,325

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	8.35	8.35	8.35	33.00	48.00	19.00	100	0	0
User Defined Recreational	0.00	15.00	0.00	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709
User Defined Recreational	0.617626	0.036451	0.176904	0.096837	0.011340	0.005282	0.018425	0.026503	0.001944	0.001632	0.005548	0.000800	0.000709

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	879.1676	879.1676	0.0703	0.0145	885.2563
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	879.1676	879.1676	0.0703	0.0145	885.2563
NaturalGas Mitigated	0.0223	0.2031	0.1706	1.2200e-003		0.0154	0.0154		0.0154	0.0154	0.0000	221.1303	221.1303	4.2400e-003	4.0500e-003	222.4444
NaturalGas Unmitigated	0.0223	0.2031	0.1706	1.2200e-003		0.0154	0.0154		0.0154	0.0154	0.0000	221.1303	221.1303	4.2400e-003	4.0500e-003	222.4444

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	4.14383e+006	0.0223	0.2031	0.1706	1.2200e-003		0.0154	0.0154		0.0154	0.0154	0.0000	221.1303	221.1303	4.2400e-003	4.0500e-003	222.4444
Total		**0.0223**	**0.2031**	**0.1706**	**1.2200e-003**		**0.0154**	**0.0154**		**0.0154**	**0.0154**	**0.0000**	**221.1303**	**221.1303**	**4.2400e-003**	**4.0500e-003**	**222.4444**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	4.14383e+006	0.0223	0.2031	0.1706	1.2200e-003		0.0154	0.0154		0.0154	0.0154	0.0000	221.1303	221.1303	4.2400e-003	4.0500e-003	222.4444
Total		**0.0223**	**0.2031**	**0.1706**	**1.2200e-003**		**0.0154**	**0.0154**		**0.0154**	**0.0154**	**0.0000**	**221.1303**	**221.1303**	**4.2400e-003**	**4.0500e-003**	**222.4444**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	5.34154e +006	879.1676	0.0703	0.0145	885.2563
Total		**879.1676**	**0.0703**	**0.0145**	**885.2563**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	5.34154e +006	879.1676	0.0703	0.0145	885.2563
Total		**879.1676**	**0.0703**	**0.0145**	**885.2563**

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	2.9814	0.0000	3.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.6000e-004	7.6000e-004	0.0000	0.0000	8.1000e-004
Unmitigated	2.9814	0.0000	3.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.6000e-004	7.6000e-004	0.0000	0.0000	8.1000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4488					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.5325					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	3.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.6000e-004	7.6000e-004	0.0000	0.0000	8.1000e-004
Total	**2.9814**	**0.0000**	**3.9000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**7.6000e-004**	**7.6000e-004**	**0.0000**	**0.0000**	**8.1000e-004**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4488					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.5325					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	3.9000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.6000e-004	7.6000e-004	0.0000	0.0000	8.1000e-004
Total	**2.9814**	**0.0000**	**3.9000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**7.6000e-004**	**7.6000e-004**	**0.0000**	**0.0000**	**8.1000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	101.6351	0.5325	0.0140	119.1148
Unmitigated	101.6351	0.5325	0.0140	119.1148

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 32.8849	60.1333	4.8100e-003	9.9000e-004	60.5498
User Defined Recreational	16.104 / 1.02792	41.5018	0.5277	0.0130	58.5650
Total		**101.6351**	**0.5325**	**0.0140**	**119.1147**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 32.8849	60.1333	4.8100e-003	9.9000e-004	60.5498
User Defined Recreational	16.104 / 1.02792	41.5018	0.5277	0.0130	58.5650
Total		**101.6351**	**0.5325**	**0.0140**	**119.1147**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	419.6818	24.8025	0.0000	1,039.7439
Unmitigated	419.6818	24.8025	0.0000	1,039.7439

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	1.19	0.2416	0.0143	0.0000	0.5985
User Defined Recreational	2066.3	419.4402	24.7882	0.0000	1,039.145 4
Total		**419.6818**	**24.8025**	**0.0000**	**1,039.743 9**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	1.19	0.2416	0.0143	0.0000	0.5985
User Defined Recreational	2066.3	419.4402	24.7882	0.0000	1,039.145 4
Total		**419.6818**	**24.8025**	**0.0000**	**1,039.743 9**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	790.8670	0.0000	0.0000	790.8670

11.1 Vegetation Land Change

Vegetation Type

	Initial/Final	Total CO2	CH4	N2O	CO2e
	Acres	MT			
Grassland	0 / 83.6	360.3160	0.0000	0.0000	360.3160
Scrub	0.39 / 0	-5.5770	0.0000	0.0000	-5.5770
Total		**354.7390**	**0.0000**	**0.0000**	**354.7390**

11.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Miscellaneous	616	436.1280	0.0000	0.0000	436.1280
Total		**436.1280**	**0.0000**	**0.0000**	**436.1280**

SDCCU Stadium
San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	151.00	Acre	151.00	6,577,560.00	0
User Defined Recreational	15.00	User Defined Unit	15.00	653,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2018
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Stadium-specific land use.

Construction Phase - Construction not analyzed.

Off-road Equipment - Construction not analyzed.

Off-road Equipment - Construction not analyzed.

Off-road Equipment - Construction not analyzed.

Off-road Equipment - Construction not analyzed.

Off-road Equipment - Construction not analyzed.

Off-road Equipment - Construction not analyzed.

Trips and VMT - Construction not analyzed.

Architectural Coating - Construction not analyzed.

Vehicle Trips - Project trip rates and lengths derived from traffic study conducted by Fehr & Peers.

Area Coating - VOC content in accordance with SDAPCD Rule 67.0.1.

Energy Use - Stadium-specific energy use.

Water And Wastewater - Stadium-specific water use.

Solid Waste - Stadium-specific waste generation.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	326,700.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	980,100.00	0.00
tblArchitecturalCoating	ConstArea_Parking	394,654.00	0.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	150
tblAreaCoating	Area_EF_Nonresidential_Interior	250	150
tblAreaCoating	Area_EF_Residential_Exterior	250	150
tblAreaCoating	Area_EF_Residential_Interior	250	150
tblConstructionPhase	NumDays	220.00	0.00
tblConstructionPhase	NumDays	3,100.00	0.00

tblConstructionPhase	NumDays	200.00	0.00
tblConstructionPhase	NumDays	310.00	0.00
tblConstructionPhase	NumDays	220.00	0.00
tblConstructionPhase	NumDays	120.00	0.00
tblEnergyUse	LightingElect	0.00	1.23
tblEnergyUse	NT24E	0.00	1.85
tblEnergyUse	NT24NG	0.00	1.75
tblEnergyUse	T24E	0.00	0.53
tblEnergyUse	T24NG	0.00	1.04
tblGrading	AcresOfGrading	0.00	775.00
tblLandUse	LandUseSquareFeet	0.00	653,400.00
tblLandUse	LotAcreage	0.00	15.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblSolidWaste	SolidWasteGenerationRate	0.00	1,166.70
tblTripsAndVMT	VendorTripNumber	1,185.00	0.00
tblTripsAndVMT	WorkerTripNumber	3,037.00	0.00
tblTripsAndVMT	WorkerTripNumber	607.00	0.00
tblVehicleTrips	CC_TL	7.30	15.00
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	CNW_TL	7.30	0.00
tblVehicleTrips	CW_TL	9.50	0.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	55.20
tblVehicleTrips	SU_TR	0.00	55.20
tblVehicleTrips	WD_TR	0.00	55.20
tblWater	IndoorWaterUseRate	0.00	7,103,913.00
tblWater	OutdoorWaterUseRate	0.00	453,441.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2018	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2019	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2031	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2032	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2018	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2019	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2031	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2032	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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

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

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.6601	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9700e-003	2.9700e-003	1.0000e-005	0.0000	3.1700e-003
Energy	9.8300e-003	0.0894	0.0751	5.4000e-004		6.7900e-003	6.7900e-003		6.7900e-003	6.7900e-003	0.0000	1,620.5110	1,620.5110	0.0632	0.0145	1,626.4020
Mobile	0.4559	2.2859	6.6778	0.0212	1.7044	0.0249	1.7294	0.4566	0.0235	0.4801	0.0000	1,943.4462	1,943.4462	0.1055	0.0000	1,946.0840
Waste						0.0000	0.0000		0.0000	0.0000	236.8296	0.0000	236.8296	13.9962	0.0000	586.7352
Water						0.0000	0.0000		0.0000	0.0000	2.2537	31.8762	34.1300	0.2328	5.7300e-003	41.6570
Total	**4.1258**	**2.3752**	**6.7544**	**0.0217**	**1.7044**	**0.0317**	**1.7362**	**0.4566**	**0.0303**	**0.4869**	**239.0833**	**3,595.8363**	**3,834.9196**	**14.3977**	**0.0202**	**4,200.8813**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.6601	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9700e-003	2.9700e-003	1.0000e-005	0.0000	3.1700e-003
Energy	9.8300e-003	0.0894	0.0751	5.4000e-004		6.7900e-003	6.7900e-003		6.7900e-003	6.7900e-003	0.0000	1,620.5110	1,620.5110	0.0632	0.0145	1,626.4020
Mobile	0.4559	2.2859	6.6778	0.0212	1.7044	0.0249	1.7294	0.4566	0.0235	0.4801	0.0000	1,943.4462	1,943.4462	0.1055	0.0000	1,946.0840
Waste						0.0000	0.0000		0.0000	0.0000	236.8296	0.0000	236.8296	13.9962	0.0000	586.7352
Water						0.0000	0.0000		0.0000	0.0000	2.2537	31.8762	34.1300	0.2328	5.7300e-003	41.6570
Total	**4.1258**	**2.3752**	**6.7544**	**0.0217**	**1.7044**	**0.0317**	**1.7362**	**0.4566**	**0.0303**	**0.4869**	**239.0833**	**3,595.8363**	**3,834.9196**	**14.3977**	**0.0202**	**4,200.8813**

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2017	12/30/2016	5	0	
2	Site Preparation	Site Preparation	10/7/2017	10/6/2017	5	0	
3	Grading	Grading	3/24/2018	3/23/2018	5	0	
4	Building Construction	Building Construction	6/1/2019	5/31/2019	5	0	
5	Paving	Paving	4/19/2031	4/18/2031	5	0	
6	Architectural Coating	Architectural Coating	2/21/2032	2/20/2032	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 775

Acres of Paving: 151

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

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	0	8.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	0	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading	Excavators	0	8.00	158	0.38
Grading	Graders	0	8.00	187	0.41
Grading	Rubber Tired Dozers	0	8.00	247	0.40
Grading	Scrapers	0	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Cranes	0	7.00	231	0.29
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction	Welders	0	8.00	46	0.45
Paving	Pavers	0	8.00	130	0.42
Paving	Paving Equipment	0	8.00	132	0.36
Paving	Rollers	0	8.00	80	0.38
Architectural Coating	Air Compressors	0	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	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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

3.3 Site Preparation - 2017

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

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

3.3 Site Preparation - 2017

Mitigated Construction Off-Site

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

3.4 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.4 Grading - 2018

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

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

3.4 Grading - 2018

Mitigated Construction Off-Site

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

3.5 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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.5 Building Construction - 2019

Unmitigated Construction Off-Site

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

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

3.5 Building Construction - 2019

Mitigated Construction Off-Site

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

3.6 Paving - 2031

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2031

Unmitigated Construction Off-Site

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

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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Paving	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.6 Paving - 2031

Mitigated Construction Off-Site

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

3.7 Architectural Coating - 2032

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

3.7 Architectural Coating - 2032

Unmitigated Construction Off-Site

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

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

3.7 Architectural Coating - 2032

Mitigated Construction Off-Site

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4559	2.2859	6.6778	0.0212	1.7044	0.0249	1.7294	0.4566	0.0235	0.4801	0.0000	1,943.4462	1,943.4462	0.1055	0.0000	1,946.0840
Unmitigated	0.4559	2.2859	6.6778	0.0212	1.7044	0.0249	1.7294	0.4566	0.0235	0.4801	0.0000	1,943.4462	1,943.4462	0.1055	0.0000	1,946.0840

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
User Defined Recreational	828.00	828.00	828.00	4,520,880	4,520,880
Total	828.00	828.00	828.00	4,520,880	4,520,880

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
User Defined Recreational	0.00	15.00	0.00	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.574135	0.045525	0.189369	0.116519	0.019283	0.005646	0.014833	0.022073	0.001871	0.002173	0.006385	0.000739	0.001452
User Defined Recreational	0.574135	0.045525	0.189369	0.116519	0.019283	0.005646	0.014833	0.022073	0.001871	0.002173	0.006385	0.000739	0.001452

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,523.2295	1,523.2295	0.0613	0.0127	1,528.5424
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,523.2295	1,523.2295	0.0613	0.0127	1,528.5424
NaturalGas Mitigated	9.8300e-003	0.0894	0.0751	5.4000e-004		6.7900e-003	6.7900e-003		6.7900e-003	6.7900e-003	0.0000	97.2815	97.2815	1.8600e-003	1.7800e-003	97.8596
NaturalGas Unmitigated	9.8300e-003	0.0894	0.0751	5.4000e-004		6.7900e-003	6.7900e-003		6.7900e-003	6.7900e-003	0.0000	97.2815	97.2815	1.8600e-003	1.7800e-003	97.8596

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	1.82299e+006	9.8300e-003	0.0894	0.0751	5.4000e-004		6.7900e-003	6.7900e-003		6.7900e-003	6.7900e-003	0.0000	97.2815	97.2815	1.8600e-003	1.7800e-003	97.8596
Total		**9.8300e-003**	**0.0894**	**0.0751**	**5.4000e-004**		**6.7900e-003**	**6.7900e-003**		**6.7900e-003**	**6.7900e-003**	**0.0000**	**97.2815**	**97.2815**	**1.8600e-003**	**1.7800e-003**	**97.8596**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	1.82299e+006	9.8300e-003	0.0894	0.0751	5.4000e-004		6.7900e-003	6.7900e-003		6.7900e-003	6.7900e-003	0.0000	97.2815	97.2815	1.8600e-003	1.7800e-003	97.8596
Total		**9.8300e-003**	**0.0894**	**0.0751**	**5.4000e-004**		**6.7900e-003**	**6.7900e-003**		**6.7900e-003**	**6.7900e-003**	**0.0000**	**97.2815**	**97.2815**	**1.8600e-003**	**1.7800e-003**	**97.8596**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	2.30215e+006	752.3615	0.0303	6.2700e-003	754.9857
User Defined Recreational	2.35877e+006	770.8680	0.0310	6.4200e-003	773.5567
Total		**1,523.2295**	**0.0613**	**0.0127**	**1,528.5424**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	2.30215e+006	752.3615	0.0303	6.2700e-003	754.9857
User Defined Recreational	2.35877e+006	770.8680	0.0310	6.4200e-003	773.5567
Total		**1,523.2295**	**0.0613**	**0.0127**	**1,528.5424**

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	3.6601	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9700e-003	2.9700e-003	1.0000e-005	0.0000	3.1700e-003
Unmitigated	3.6601	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9700e-003	2.9700e-003	1.0000e-005	0.0000	3.1700e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.6829					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.9770					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.5000e-004	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9700e-003	2.9700e-003	1.0000e-005	0.0000	3.1700e-003
Total	**3.6601**	**1.0000e-005**	**1.5500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**2.9700e-003**	**2.9700e-003**	**1.0000e-005**	**0.0000**	**3.1700e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.6829					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.9770					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.5000e-004	1.0000e-005	1.5500e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	2.9700e-003	2.9700e-003	1.0000e-005	0.0000	3.1700e-003
Total	**3.6601**	**1.0000e-005**	**1.5500e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**2.9700e-003**	**2.9700e-003**	**1.0000e-005**	**0.0000**	**3.1700e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	34.1300	0.2328	5.7300e-003	41.6570
Unmitigated	34.1300	0.2328	5.7300e-003	41.6570

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	7.10391 / 0.453441	34.1300	0.2328	5.7300e-003	41.6570
Total		**34.1300**	**0.2328**	**5.7300e-003**	**41.6570**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	7.10391 / 0.453441	34.1300	0.2328	5.7300e-003	41.6570
Total		**34.1300**	**0.2328**	**5.7300e-003**	**41.6570**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	236.8296	13.9962	0.0000	586.7352
Unmitigated	236.8296	13.9962	0.0000	586.7352

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	1166.7	236.8296	13.9962	0.0000	586.7352
Total		**236.8296**	**13.9962**	**0.0000**	**586.7352**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
User Defined Recreational	1166.7	236.8296	13.9962	0.0000	586.7352
Total		**236.8296**	**13.9962**	**0.0000**	**586.7352**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX C
SUPPORTING CONSTRUCTION EMISSION INVENTORY CALCULATIONS

List of Tables

Table C-1. On-Road Construction Trip Emission Factors (2020-2023)
SDSU Mission Valley Campus Master Plan Project
San Diego, California

Vehicle Trip Type	Calendar Year	Total CO_2	CH_4	N_2O	CO_2e
		MT/trip Emission Factor [1]			
		2020			
Haul Trips	2020	3.86E-02	3.47E-06	0.00E+00	3.86E-02
Vendor Trips	2020	1.32E-02	1.01E-06	0.00E+00	1.32E-02
Worker Trips	2020	3.62E-03	1.09E-07	0.00E+00	3.63E-03
		2021			
Haul Trips	2021	3.81E-02	3.44E-06	0.00E+00	3.82E-02
Vendor Trips	2021	1.31E-02	9.70E-07	0.00E+00	1.31E-02
Worker Trips	2021	3.50E-03	1.00E-07	0.00E+00	3.51E-03
		2022			
Haul Trips	2022	3.76E-02	3.40E-06	0.00E+00	3.77E-02
Vendor Trips	2022	1.29E-02	9.40E-07	0.00E+00	1.30E-02
Worker Trips	2022	3.37E-03	9.20E-08	0.00E+00	3.38E-03
		2023			
Haul Trips	2023	3.63E-02	3.25E-06	0.00E+00	3.64E-02
Vendor Trips	2023	1.26E-02	8.58E-07	0.00E+00	1.26E-02
Worker Trips	2023	3.25E-03	8.40E-08	0.00E+00	3.25E-03

Notes:

[1] Emission factors derived from CalEEMod®. CalEEMod® run can be referenced in Appendix B-3.

Abbreviations:

CalEEMod® - CALifornia Emissions Estimator MODel
CH_4 - methane
CO_2 - carbon dioxide
CO_2e - carbon dioxide equivalents
MT - metric tons
N_2O - nitrous oxide
SDSU - San Diego State University

Table C-2. Estimating CO_2e Emissions from Construction in 2020 to 2023
SDSU Mission Valley Campus Master Plan Project
San Diego, California

	Feb-2020	Mar-2020	Apr-2020	May-2020	Jun-2020	Jul-2020	Aug-2020	Sep-2020
	2/1/2020	3/1/2020	4/1/2020	5/1/2020	6/1/2020	7/1/2020	8/1/2020	9/1/2020
Vehicle Trip Type	2/29/2020	3/31/2020	4/30/2020	5/31/2020	6/30/2020	7/31/2020	8/31/2020	9/30/2020
Worker Trips	7.0	8.2	13.1	14.2	14.9	20.5	20.2	23.5
Vendor Trips	6.3	7.0	24.4	23.3	34.9	38.9	35.5	37.2
Haul Trips	324.7	357.1	357.1	0.0	17.0	142.2	129.9	136.0
Total GHG Emissions (MT CO_2e)	338.0	372.3	394.6	37.6	66.8	201.7	185.6	196.8

Table C-2. Estimating CO_2e Emissions from Construction in 2020 to 2023
SDSU Mission Valley Campus Master Plan Project
San Diego, California

	Oct-2020	Nov-2020	Dec-2020	Jan-2021	Feb-2021	Mar-2021	Apr-2021	May-2021
	10/1/2020	11/1/2020	12/1/2020	1/1/2021	2/1/2021	3/1/2021	4/1/2021	5/1/2021
Vehicle Trip Type	10/31/2020	11/30/2020	12/31/2020	1/31/2021	2/28/2021	3/31/2021	4/30/2021	5/31/2021
Worker Trips	18.2	17.4	25.4	28.9	28.8	36.2	36.1	24.7
Vendor Trips	19.8	18.9	32.8	42.9	40.9	47.0	27.7	26.4
Haul Trips	136.0	129.9	142.2	128.2	122.1	140.5	134.3	128.2
Total GHG Emissions (MT CO_2e)	174.0	166.1	200.4	200.0	191.8	223.6	198.1	179.3

Table C-2. Estimating CO_2e Emissions from Construction in 2020 to 2023
SDSU Mission Valley Campus Master Plan Project
San Diego, California

Vehicle Trip Type	Jun-2021 6/1/2021 6/30/2021	Jul-2021 7/1/2021 7/31/2021	Aug-2021 8/1/2021 8/31/2021	Sep-2021 9/1/2021 9/30/2021	Oct-2021 10/1/2021 10/31/2021	Nov-2021 11/1/2021 11/30/2021	Dec-2021 12/1/2021 12/31/2021	Jan-2022 1/1/2022 1/31/2022
Worker Trips	25.8	24.4	22.3	22.3	15.7	16.4	15.6	19.1
Vendor Trips	27.7	27.7	27.7	27.7	20.9	21.9	22.9	20.7
Haul Trips	134.3	134.3	134.3	134.3	128.2	134.3	140.5	0.0
Total GHG Emissions (MT CO_2e)	187.8	186.4	184.3	184.3	164.8	172.7	179.0	39.8

Table C-2. Estimating CO_2e Emissions from Construction in 2020 to 2023
SDSU Mission Valley Campus Master Plan Project
San Diego, California

	Feb-2022	Mar-2022		Apr-2022		May-2022	Jun-2022	
	2/1/2022	3/1/2022	3/2/2022	4/1/2022	4/16/2022	5/1/2022	6/1/2022	6/15/2022
Vehicle Trip Type	2/28/2022	3/1/2022	3/31/2022	4/15/2022	4/30/2022	5/31/2022	6/14/2022	6/30/2022
Worker Trips	15.7	0.9	20.1	10.0	9.1	20.1	8.5	10.2
Vendor Trips	9.3	0.7	16.0	5.1	4.7	10.3	4.7	5.6
Haul Trips	0.0	0.0	0.0	0.0	0.0	132.6	60.3	72.3
Total GHG Emissions (MT CO_2e)	25.0	1.6	36.0	15.2	13.8	162.9	73.4	88.1

Table C-2. Estimating CO_2e Emissions from Construction in 2020 to 2023
SDSU Mission Valley Campus Master Plan Project
San Diego, California

Vehicle Trip Type	Jul-2022 7/1/2022 7/31/2022	Aug-2022 8/1/2022 8/31/2022	Sep-2022 9/1/2022 9/30/2022	Oct-2022 10/1/2022 10/31/2022	Nov-2022 11/1/2022 11/30/2022	Dec-2022 12/1/2022 12/31/2022	Jan-2023 1/1/2023 1/31/2023	Feb-2023 2/1/2023 2/28/2023
Worker Trips	8.9	9.8	9.4	8.9	9.4	9.4	9.0	8.2
Vendor Trips	4.4	4.8	4.6	4.4	4.6	4.6	4.5	4.0
Haul Trips	126.6	138.6	132.6	126.6	132.6	0.0	0.0	0.0
Total GHG Emissions (MT CO_2e)	139.9	153.2	146.5	139.9	146.5	13.9	13.5	12.2

Table C-2. Estimating CO_2e Emissions from Construction in 2020 to 2023
SDSU Mission Valley Campus Master Plan Project
San Diego, California

	Mar-2023	**Apr-2023**	**May-2023**	**Jun-2023**	**Jul-2023**	**Aug-2023**	**Sep-2023**
	3/1/2023	**4/1/2023**	**5/1/2023**	**6/1/2023**	**7/1/2023**	**8/1/2023**	**9/1/2023**
Vehicle Trip Type	**3/31/2023**	**4/30/2023**	**5/31/2023**	**6/30/2023**	**7/31/2023**	**8/31/2023**	**9/30/2023**
Worker Trips	9.1	7.9	9.1	7.9	6.3	6.9	6.3
Vendor Trips	4.7	4.0	4.7	2.2	2.1	2.3	2.1
Haul Trips	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total GHG Emissions (MT CO_2e)	13.8	12.0	13.8	10.2	8.4	9.2	8.4

Table C-2. Estimating CO_2e Emissions from Construction in 2020 to 2023
SDSU Mission Valley Campus Master Plan Project
San Diego, California

Vehicle Trip Type	Oct-2023 10/1/2023 10/31/2023	Nov-2023 11/1/2023 11/30/2023	Dec-2023 12/1/2023 12/31/2023
Worker Trips	6.6	6.6	6.3
Vendor Trips	2.2	2.2	2.1
Haul Trips	0.0	0.0	0.0
Total GHG Emissions (MT CO_2e)	8.8	8.8	8.4

Notes:

[1] Emissions associated with worker, vendor, and haul trips was estimates using the number of daily trips from Table 4-1c in the main report, number of working days in each month, and emissions factors in Table C-2 in Appendix C.