# Appendix 5.6-1 Greenhouse Gas Analysis

# Appendices

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# Greenhouse Gas Analysis for the Inland Valley Medical Center Project Wildomar, California

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# Acronyms and Abbreviations

| | |
|---|---|
| AB | Assembly Bill |
| BAU | business as usual |
| CAFE | Corporate Average Fuel Economy |
| CalEEMod | California Emissions Estimator Model |
| CALGreen | California Green Building Standards Code |
| CalRecycle | California Department of Resources Recycling and Recovery |
| CAP | Climate Action Plan |
| CAPCOA | California Air Pollution Control Officers Association |
| CARB | California Air Resources Board |
| CBC | California Building Code |
| CEC | California Energy Commission |
| CEQ | Council on Environmental Quality |
| CEQA | California Environmental Quality Act |
| $CH_4$ | methane |
| City | City of Wildomar |
| $CO_2$ | carbon dioxide |
| EAP | Energy Action Plans |
| EO | Executive Order |
| EPA | Environmental Protection Agency |
| GHG | greenhouse gas |
| GWP | global warming potential |
| IPCC | Intergovernmental Panel on Climate Change |
| kW | kilowatts |
| MMT $CO_2E$ | million metric tons carbon dioxide equivalent |
| MPF | Marijuana Production Facility |
| mpg | miles per gallon |
| MPO | Metropolitan Planning Organizations |
| MT $CO_2E$ | metric tons of carbon dioxide equivalent |
| MWh | megawatt-hour |
| $N_2O$ | nitrous oxide |
| PGA | priority growth area |
| Project | Inland Valley Medical Center |
| RPS | Renewables Portfolio Standard |
| RTA | Riverside Transit Agency |
| RTP/SCS | Regional Transportation Plan/Sustainable Communities Strategy |
| SB | Senate Bill |
| SCAG | Southern California Association of Governments |
| SCAQMD | South Coast Air Quality Management District |
| SCE | Southern California Edison |
| U.S. EPA | U.S. Environmental Protection Agency |
| WRCOG | Western Riverside Council of Governments |

# Executive Summary

The Inland Valley Medical Center Project (project) is located at 36485 Inland Valley Drive on a 22.25-acre site in Wildomar California. The Inland Valley Medical Center provides medical services, trauma surgery, intensive care, diagnostic imaging, rehabilitation, and other medical services. The project would expand the existing Inland Valley Medical Center with a new 100-bed, 232,000-square-foot addition to the hospital that includes expansion of all services and critical ancillary support, bringing the campus total to 202 beds and 298,925 square feet.

The City has not adopted greenhouse gas (GHG) emissions thresholds of significance for the California Environmental Quality Act (CEQA). This analysis evaluates the significance of the proposed project in accordance with CEQA and guidance from the South Coast Air Quality Management District (SCAQMD). This report evaluates the significance of the project in terms of (1) its contribution of GHGs to cumulative statewide emissions, and (2) whether the project would conflict with local and/or state regulations, plans, and policies adopted to reduce GHG emissions.

The significance of the project's GHG emissions was assessed based on screening levels recommended by the SCAQMD's Interim CEQA GHG Significance Thresholds (SCAQMD 2008). Consistent with the SCAQMD guidance, the recommended tiered approach for land use development projects in SCAQMD jurisdiction is assessment against the applicable screening levels. As the project is not exempt from CEQA and is not part of an approved local plan, project emissions are assessed against the stationary source 10,000 metric tons of carbon dioxide equivalent (MT $CO_2E$) screening level. This screening level is intended to exempt projects that are too small to have significant impacts from further analysis. This threshold is based on the concept of establishing a 90 percent GHG emission capture rate. Following rationale presented in the CAPCOA Guidance, the aggregate emissions from all projects with individual annual emissions that are equal to or less than the identified capture rate would not impede achievement of the state GHG emissions reduction targets codified by Assembly Bill 32 (2006) and Senate Bill 32 (2016), and impacts under CEQA would, therefore, be less than cumulatively considerable.

GHG emissions would result from construction and operation of the project. Construction activities emit GHGs primarily through the combustion of fuels in on- and off-road equipment and vehicles. Operational emissions include mobile, energy (electricity and natural gas), area (landscape maintenance equipment), water and wastewater, and solid waste sources, as well as stationary sources associated with the Central Utility Plant. As shown calculated in this analysis, the project would result in a net increase of 7,695 MT $CO_2E$ per year. As project emissions would be less than the 10,000 MT $CO_2E$ screening level, GHG emissions impacts would be less than significant. Additionally, the project would be consistent with applicable 2017 Scoping Plan and Connect SoCal measures, and is in line with the GHG reductions needed to achieve the 2050 GHG emission reduction targets identified by EO S-3-05. Therefore, GHG impacts would be less than significant.

# 1.0 Introduction

This report evaluates the greenhouse gas (GHG) emissions associated with the proposed Inland Valley Medical Center project (project). The purpose of this report is to evaluate project-related construction and operational emissions and determine the level of GHG impacts as a result of constructing and operating the project.

## 1.1 Understanding Global Climate Change

To evaluate the incremental effect of the project on statewide GHG emissions and global climate change, it is important to have a basic understanding of the nature of the global climate change problem. Global climate change is a change in the average weather of the earth, which can be measured by wind patterns, storms, precipitation, and temperature. The earth's climate is in a state of constant flux with periodic warming and cooling cycles. Extreme periods of cooling are termed "ice ages," which may then be followed by extended periods of warmth. For most of the earth's geologic history, these periods of warming and cooling have been the result of many complicated interacting natural factors that include volcanic eruptions that spew gases and particles (dust) into the atmosphere; the amount of water, vegetation, and ice covering the earth's surface; subtle changes in the earth's orbit; and the amount of energy released by the sun (sun cycles). However, since the beginning of the Industrial Revolution around 1750, the average temperature of the earth has been increasing at a rate that is faster than can be explained by natural climate cycles alone.

With the Industrial Revolution came an increase in the combustion of carbon-based fuels such as wood, coal, oil, natural gas, and biomass. Industrial processes have also created emissions of substances not found in nature. This in turn has led to a marked increase in the emissions of gases shown to influence the world's climate. These gases, termed "greenhouse" gases, influence the amount of heat trapped in the earth's atmosphere. Recently observed increased concentrations of GHGs in the atmosphere appear to be related to increases in human activity. Therefore, the current cycle of "global warming" is believed to be largely due to human activity. Of late, the issue of global warming or global climate change has arguably become the most important and widely debated environmental issue in the United States and the world. Because it is believed that the increased GHG concentrations around the world are related to human activity and the collective of human actions taking place throughout the world, it is quintessentially a global or cumulative issue.

## 1.2 Greenhouse Gases of Primary Concern

There are numerous GHGs, both naturally occurring and manmade. Each GHG has variable atmospheric lifetime and global warming potential (GWP). The atmospheric lifetime of the gas is the average time a molecule stays stable in the atmosphere. Most GHGs have long atmospheric lifetimes, staying in the atmosphere hundreds or thousands of years. GWP is a measure of the potential for a gas to trap heat and warm the atmosphere. Although GWP is related to its atmospheric lifetime, many other factors including chemical reactivity of the gas also influence GWP. GWP is reported as a unitless factor representing the potential for

the gas to affect global climate relative to the potential of carbon dioxide ($CO_2$). Because $CO_2$ is the reference gas for establishing GWP, by definition its GWP is 1. Although methane ($CH_4$) has a shorter atmospheric lifetime than $CO_2$, it has a 100-year GWP of 28; this means that $CH_4$ has 28 times more effect on global warming than $CO_2$ on a molecule-by-molecule basis.

The GWP is officially defined as (U.S. Environmental Protection Agency [U.S. EPA] 2010):

> The cumulative radiative forcing—both direct and indirect effects—integrated over a period of time from the emission of a unit mass of gas relative to some reference gas.

GHG emissions estimates are typically represented in terms of equivalent metric tons of $CO_2$ (MT $CO_2E$). $CO_2E$ emissions are the product of the amount of each gas by its GWP. The effects of several GHGs may be discussed in terms of MT $CO_2E$ and can be summed to represent the total potential of these gases to warm the global climate. Table 1 summarizes some of the most common GHGs.

It should be noted that the U.S. EPA and other organizations update the GWP values they use occasionally. This change can be due to updated scientific estimates of the energy absorption or lifetime of the gases or to changing atmospheric concentrations of GHGs that result in a change in the energy absorption of one additional ton of a gas relative to another. The GWPs shown in Table 1 are the most current. However, it should be noted that in the California Emissions Estimator Model (CalEEMod), which is the model used in this analysis to calculate emission, $CH_4$ has a GWP of 25 and nitrous oxide ($N_2O$) has a GWP of 298, consistent with the Scoping Plan.

All of the gases in Table 1 are produced by both biogenic (natural) and anthropogenic (human) sources. These are the GHGs of primary concern in this analysis. $CO_2$ would be emitted by the project due to the combustion of fossil fuels in vehicles (including construction), from electricity generation and natural gas consumption, water use, and from solid waste disposal. Smaller amounts of $CH_4$ and $N_2O$ would be emitted from the same project operations.

| Table 1<br>Global Warming Potentials and Atmospheric Lifetimes<br>(years) | | | |
|---|---|---|---|
| Gas | Atmospheric Lifetime (years) | 100-year GWP | 20-year GWP |
| Carbon dioxide ($CO_2$) | 50–200 | 1 | 1 |
| Methane ($CH_4$) | 12.4 | 25/28* | 84 |
| Nitrous oxide ($N_2O$) | 121 | 298/265* | 264 |
| HFC-23 | 222 | 12,400 | 10,800 |
| HFC-32 | 5.2 | 677 | 2,430 |
| HFC-125 | 28.2 | 3,170 | 6,090 |
| HFC-134a | 13.4 | 1,300 | 3,710 |
| HFC-143a | 47.1 | 4,800 | 6,940 |
| HFC-152a | 1.5 | 138 | 506 |
| HFC-227ea | 38.9 | 3,350 | 5,360 |
| HFC-236fa | 242 | 8,060 | 6,940 |
| HFC-43-10mee | 16.1 | 1,650 | 4,310 |
| $CF_4$ | 50,000 | 6,630 | 4,880 |
| $C_2F_6$ | 10,000 | 11,100 | 8,210 |
| $C_3F_8$ | 2,600 | 8,900 | 6,640 |
| $C_4F_{10}$ | 2,600 | 9,200 | 6,870 |
| c-$C_4F_8$ | 3,200 | 9,540 | 7,110 |
| $C_5F_{12}$ | 4,100 | 8,550 | 6,350 |
| $C_6F_{14}$ | 3,100 | 7,910 | 5,890 |
| $SF_6$ | 3,200 | 23,500 | 17,500 |

SOURCE: Intergovernmental Panel on Climate Change (IPCC) 2007, 2014.
GWP = growth warming potential
*The $CH_4$ and $N_2O$ 100-year GWPs included in CalEEMod are 25 and 298, respectively, from the IPCC Fourth Assessment Report. All other values are from the current Fifth Assessment Report.

# 2.0 Project Description

The Inland Valley Medical Center is located at 36485 Inland Valley Drive on a 22.25-acre site in Wildomar California. The north site boundary is a well-preserved natural ravine and the east edge is Inland Valley Drive, which provides access to the campus. The west and south site edges are bounded by Interstate 15. The Inland Valley Medical Center provides medical services, trauma surgery, intensive care, diagnostic imaging, rehabilitation, and other medical services. The existing buildings include several one- and two-story structures: Buildings A, B-H, C, I, a Central Utility Plant, and an Administration building. Buildings A and I house patient rooms and Buildings B-H house the diagnostic and treatment areas. The Administration building houses non-clinical functions. Figure 1 shows the regional location and Figure 2 shows an aerial photograph of the project site and vicinity. Figure 3 shows the existing site plan.


Project Location

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# FIGURE 1
Regional Location

Image Source: Nearmap (flown January 2020)


Project Boundary

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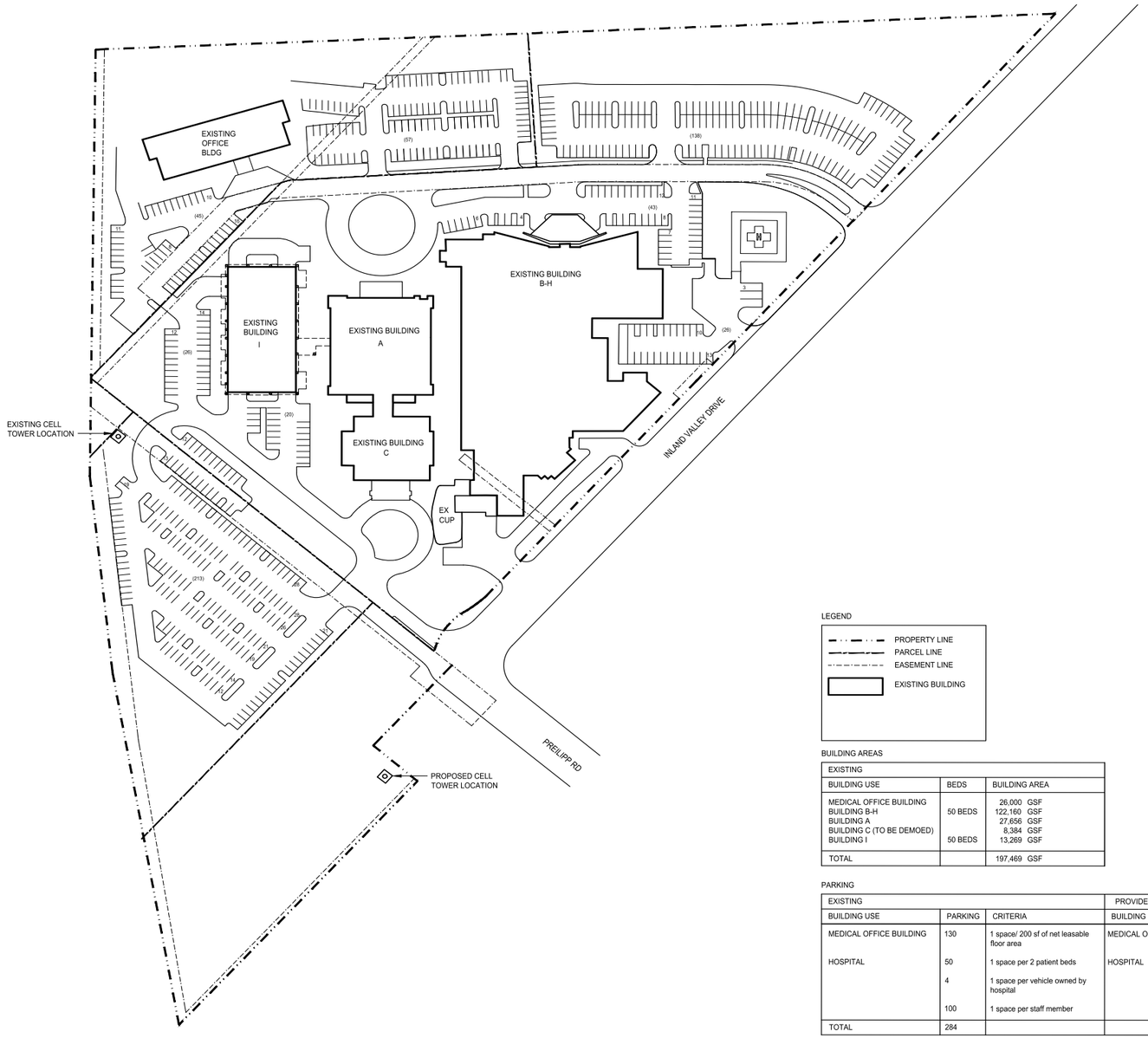
FIGURE 2

Project Location on Aerial Photograph

Map Source: Hellmuth, Obata & Kassabaum, Inc.




LEGEND

- PROPERTY LINE
- PARCEL LINE
- EASEMENT LINE
- EXISTING BUILDING

BUILDING AREAS

| EXISTING | | |
|---|---|---|
| BUILDING USE | BEDS | BUILDING AREA |
| MEDICAL OFFICE BUILDING | | 26,000 GSF |
| BUILDING B-H | 50 BEDS | 122,160 GSF |
| BUILDING A | | 27,656 GSF |
| BUILDING C (TO BE DEMOED) | | 8,384 GSF |
| BUILDING I | 50 BEDS | 13,269 GSF |
| TOTAL | | 197,469 GSF |

PARKING

| EXISTING | | | PROVIDED | | |
|---|---|---|---|---|---|
| BUILDING USE | PARKING | CRITERIA | BUILDING USE | PARKING | CRITERIA |
| MEDICAL OFFICE BUILDING | 130 | 1 space/ 200 sf of net leasable floor area | MEDICAL OFFICE BUILDING | | |
| HOSPITAL | 50 | 1 space per 2 patient beds | HOSPITAL | 568 | EXISTING PARKING |
| | 4 | 1 space per vehicle owned by hospital | | | |
| | 100 | 1 space per staff member | | | |
| TOTAL | 284 | | | 568 | |

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FIGURE 3
Existing Site Plan

This project would expand the existing Inland Valley Medical Center with a new 100-bed, 232,000-square-foot addition to the hospital that includes expansion of all services and critical ancillary support, bringing the campus total to 202 beds and 298,925 square feet.

Demolition of existing Building C would allow for the construction of a seven-story, 232,000-square-foot new tower. The podium area of the new tower would connect to existing Buildings I and A, unifying the hospital campus. The ground level would contain the emergency department with direct entry/access for walk-in patients and ambulance, with operating rooms on the second floor above. The bed tower would be above the podium and centered on axis with Building A. The new tower would be placed to allow for the existing hospital Buildings B-H, and the existing Central Utility Plant, to remain operational during construction.

Modifications to Building I, which currently houses patient rooms on the second floor over open parking stalls, would enclose the first floor for a new loading dock and materials management department.

Modifications to Building A, which currently houses patient rooms on the second floor, include a new main entry canopy and lobby renovation, which would be the new front door to the medical center; a connecting corridor that links the new entry with public elevators in the new tower; and renovation of spaces for relocated departments once the new hospital is completed.

A new Central Utility Plant would serve the new tower and backfeed existing Buildings I and A that are to remain. The project would conclude with demolition of existing hospital Buildings B-H and the creation of new surface parking lots.

Figure 4 shows the proposed site plan.

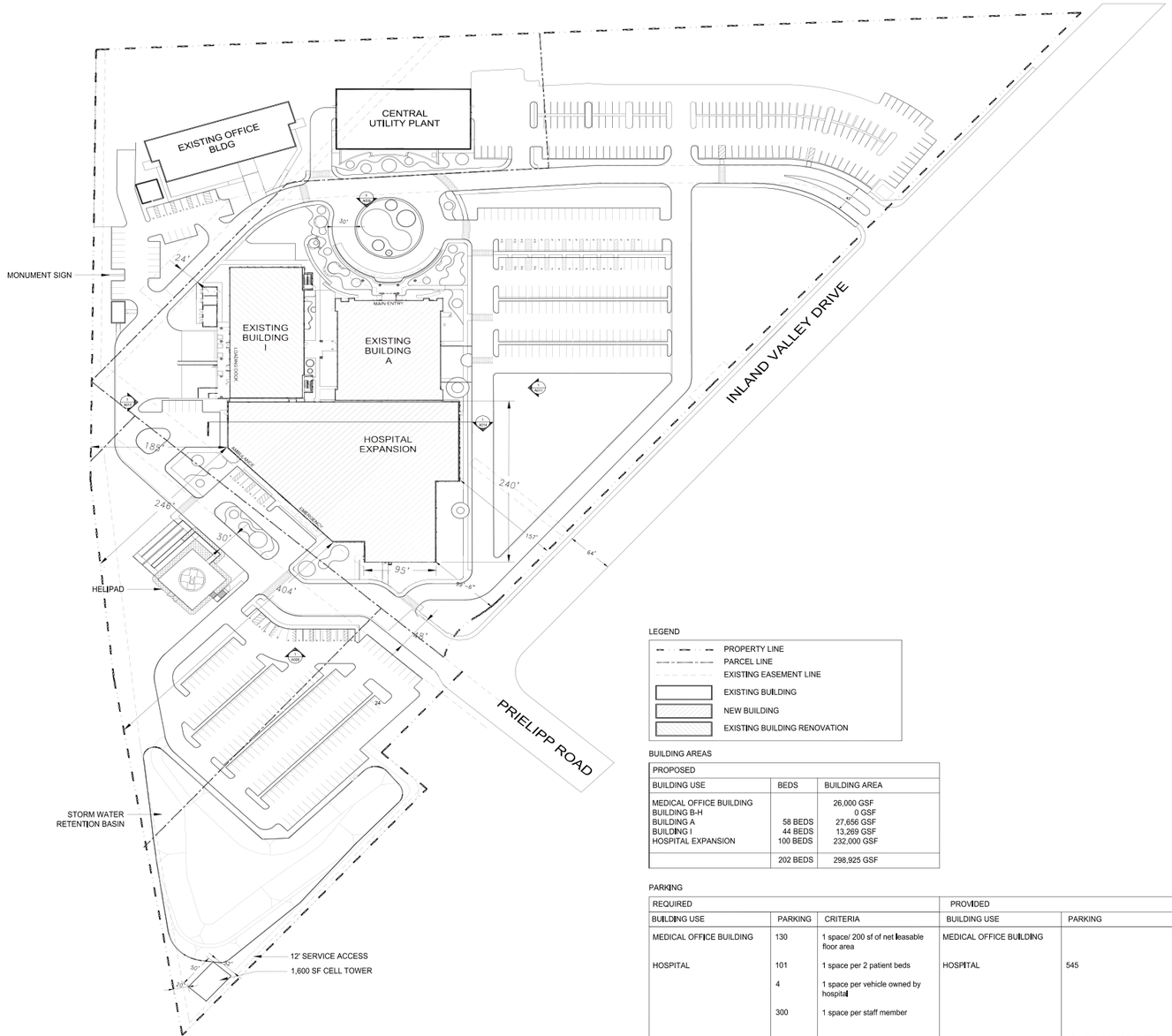
# 3.0 Existing Conditions

## 3.1 Environmental Setting

### 3.1.1 State and Regional GHG Inventories

The California Air Resources Board (CARB) performs statewide GHG inventories. The inventory is divided into nine broad sectors of economic activity: agriculture, commercial, electricity generation, forestry, high GWP emitters, industrial, recycling and waste, residential, and transportation. Emissions are quantified in million metric tons of $CO_2$ equivalent (MMT $CO_2E$). Table 2 shows the estimated statewide GHG emissions for the years 1990, 2010, and 2018. Although annual GHG inventory data is available for years 2000 through 2018, the years 1990, 2010, and 2018 are highlighted in Table 2 because 1990 is the baseline year for established reduction targets, 2010 corresponds to the same years for which inventory data for the City is available, and 2018 is the most recent data available.

Map Source: Hellmuth, Obata & Kassabaum, Inc.




LEGEND

- PROPERTY LINE
- PARCEL LINE
- EXISTING EASEMENT LINE
- EXISTING BUILDING
- NEW BUILDING
- EXISTING BUILDING RENOVATION

BUILDING AREAS

| PROPOSED | | |
|---|---|---|
| BUILDING USE | BEDS | BUILDING AREA |
| MEDICAL OFFICE BUILDING | | 26,000 GSF |
| BUILDING B-H | | 0 GSF |
| BUILDING A | 58 BEDS | 27,656 GSF |
| BUILDING I | 44 BEDS | 13,269 GSF |
| HOSPITAL EXPANSION | 100 BEDS | 232,000 GSF |
| | 202 BEDS | 298,925 GSF |

PARKING

| REQUIRED | | | PROVIDED | | |
|---|---|---|---|---|---|
| BUILDING USE | PARKING | CRITERIA | BUILDING USE | PARKING | CRITERIA |
| MEDICAL OFFICE BUILDING | 130 | 1 space/ 200 sf of net leasable floor area | MEDICAL OFFICE BUILDING | | |
| HOSPITAL | 101 | 1 space per 2 patient beds | HOSPITAL | 545 | |
| | 4 | 1 space per vehicle owned by hospital | | | |
| | 300 | 1 space per staff member | | | |
| ADA STALLS REQUIRED (10% PARKING) 1 VAN STALLS 1 / 8 STD STALLS | 54 | | | ADA STALLS PROVIDED 56 STD STALLS 46 VAN STALLS 10 | |

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FIGURE 4
Proposed Site Plan

| Table 2<br>California GHG Emissions By Sector in 1990, 2010, and 2018 | | | |
|---|---|---|---|
| Sector | 1990[1] Emissions in MMT $CO_2E$ (% total)[2] | 2010[3] Emissions in MMT $CO_2E$ (% total)[2] | 2018[3] Emissions in MMT $CO_2E$ (% total)[2] |
| Electricity Generation | 110.5 (25.7%) | 90.5 (20.2%) | 63.3 (14.9%) |
| Transportation | 150.6 (35.0%) | 170.2 (38.0%) | 173.8 (40.9%) |
| Industrial | 105.3 (24.4%) | 101.6 (22.7%) | 101.3 (23.8%) |
| Commercial | 14.4 (3.4%) | 20.1 (4.5%) | 23.9 (5.6%) |
| Residential | 29.7 (6.9%) | 32.1 (7.2%) | 30.5 (7.2%) |
| Agriculture & Forestry | 18.9 (4.4%) | 33.7 (7.5%) | 32.6 (7.7%) |
| Not Specified | 1.3 (0.3%) | -- | -- |
| **Total[4]** | **430.7** | **448.2** | **425.3** |

SOURCE: CARB 2007 and 2020.
[1]1990 data was obtained from the CARB 2007 source and are based on IPCC fourth assessment report GWPs.
[2]Percentages may not total 100 due to rounding.
[3]2010 and 2018 data was retrieved from the CARB 2020 source and are based on IPCC fourth assessment report GWPs.
[4]Totals may vary due to independent rounding.

As shown in Table 2, statewide GHG source emissions totaled approximately 431 MMT $CO_2E$ in 1990, 448 MMT $CO_2E$ in 2010, and 425 MMT $CO_2E$ in 2018. Many factors affect year-to-year changes in GHG emissions, including economic activity, demographic influences, environmental conditions such as drought, and the impact of regulatory efforts to control GHG emissions. As shown, transportation-related emissions consistently contribute to the most GHG emissions.

A City of Wildomar emissions inventory was prepared for baseline year 2010. The total community-wide GHG emissions in 2010 were 176,046 MT $CO_2E$. Table 3 summarizes the sources and quantities of community emissions. The largest source of emissions is transportation.

| Table 3<br>City of Wildomar GHG Emissions in 2010 | |
|---|---|
| Sector | 2010 GHG Emissions (MT $CO_2E$) |
| Residential Energy and Water Use | 47,173 (27%) |
| Commercial/Industrial Energy and Water Use | 14,379 (8%) |
| Transportation | 111,119 (63%) |
| Waste Generation | 3,375 (2%) |
| **Total** | **176,046** |

SOURCE: Western Riverside Council of Governments 2010.

## 3.2 Regulatory Background

In response to rising concern associated with increasing GHG emissions and global climate change impacts, several plans and regulations have been adopted at the international, national, and state levels with the aim of reducing GHG emissions. The following is a discussion of the federal, state, and local plans and regulations most applicable to the project.

## 3.2.1 Federal

The federal government, U.S. EPA, and other federal agencies have many federal level programs and projects to reduce GHG emissions. In June 2012, the Council on Environmental Quality (CEQ) revised the Federal Greenhouse Gas Accounting and Reporting Guidance originally issued in October 2010. The CEQ guidance identifies ways in which federal agencies can improve consideration of GHG emissions and climate change for federal actions. The guidance states that National Environmental Policy Act documents should provide decision makers with relevant and timely information and should consider (1) GHG emissions of a Proposed Action and alternative actions and (2) the relationship of climate change effects to a Proposed Action or alternatives. Specifically, if a Proposed Action would be reasonably anticipated to cause direct emissions of 25,000 MT $CO_2E$ GHG emissions on an annual basis, agencies should consider this as an indicator that a quantitative assessment may be meaningful to decision makers and the public (CEQ 2012).

### 3.2.1.1 U.S. Environmental Protection Agency

In 2009, the U.S. EPA issued its science-based finding that the buildup of heat-trapping GHGs in the atmosphere endangers public health and welfare. The "Endangerment Finding" reflects the overwhelming scientific evidence on the causes and impacts of climate change. It was made after a thorough rulemaking process considering thousands of public comments, and was upheld by the federal courts.

The U.S. EPA has many federal level programs and projects to reduce GHG emissions. The U.S. EPA provides technical expertise and encourages voluntary reductions from the private sector. One of the voluntary programs applicable to the project is the Energy Star program. Energy Star products such as appliances, building products, heating and cooling equipment, and other energy-efficient equipment will be utilized by the project.

Energy Star is a joint program of U.S. EPA and the U.S. Department of Energy, which promotes energy-efficient products and practices. Tools and initiatives include the Energy Star Portfolio Manager, which helps track and assess energy and water consumption across an entire portfolio of buildings, and the Energy Star Most Efficient 2020, which provides information on exceptional products which represent the leading edge in energy-efficient products in the year 2020 (U.S. EPA 2020a).

The U.S. EPA also collaborates with the public sector, including states, tribes, localities and resource managers, to encourage smart growth, sustainability preparation, and renewable energy and climate change preparation. These initiatives include the Clean Energy – Environment State Partnership Program, the Climate Ready Water Utilities Initiative, the Climate Ready Estuaries Program, and the Sustainable Communities Partnership (U.S. EPA 2020b).

#### 3.2.1.2 Corporate Average Fuel Economy Standards

The project would generate vehicle trips. These vehicles would consume fuel and would result in GHG emissions. The federal Corporate Average Fuel Economy (CAFE) standards determine the fuel efficiency of certain vehicle classes in the U.S. The first phase of the program applied to passenger cars, new light-duty trucks, and medium-duty passenger cars with model years 2012 through 2016, and required these vehicles to achieve a standard equivalent to 35.5 miles per gallon (mpg). The second phase of the program applies to model years 2017 through 2025 and increased the standards to 54.5 mpg. Separate standards were also established for medium- and heavy-duty vehicles. The first phase applied to model years 2014 through 2018 and the second phase applies to model years 2018 through 2027. With improved gas mileage, fewer gallons of transportation fuel would be combusted to travel the same distance, thereby reducing nationwide GHG emissions associated with vehicle travel.

### 3.2.2 State

The State of California has adopted a number of plans and regulations aimed at identifying statewide and regional GHG emissions caps, GHG emissions reduction targets, and actions and timelines to achieve the target GHG reductions.

#### 3.2.2.1 Executive Orders and Statewide GHG Emission Targets

##### Executive Order S-3-05

This Executive Order (EO) established the following GHG emission reduction targets for the State of California:

- by 2010, reduce GHG emissions to 2000 levels;
- by 2020, reduce GHG emissions to 1990 levels;
- by 2050, reduce GHG emissions to 80 percent below 1990 levels.

This EO also directs the secretary of the California Environmental Protection Agency to oversee the efforts made to reach these targets, and to prepare biannual reports on the progress made toward meeting the targets and on the impacts to California related to global warming, including impacts to water supply, public health, agriculture, the coastline, and forestry. With regard to impacts, the report shall also prepare and report on mitigation and adaptation plans to combat the impacts. The first Climate Action Team Assessment Report was produced in March 2006, and has since been updated every two years.

##### Executive Order B-30-15

This EO, issued on April 29, 2015, establishes an interim GHG emission reduction goal for the state of California by 2030 of 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. Additionally, this EO directed CARB to update its Climate Change Scoping Plan to address the 2030 goal.

### 3.2.2.2 California Global Warming Solutions Act

In response to EO S-3-05, the California Legislature passed AB 32, the California Global Warming Solutions Act of 2006, and thereby enacted Sections 38500–38599 of the California Health and Safety Code. The heart of AB 32 is its requirement that CARB establish an emissions cap and adopt rules and regulations that would reduce GHG emissions to 1990 levels by 2020. AB 32 also required CARB to adopt a plan by January 1, 2009 indicating how emission reductions would be achieved from significant GHG sources via regulations, market mechanisms, and other actions.

In 2008, CARB estimated that annual statewide GHG emissions were 427 MMT $CO_2E$ in 1990 and would reach 596 MMT $CO_2E$ by 2020 under a business as usual (BAU) condition (CARB 2008). To achieve the mandate of AB 32, CARB determined that a 169 MMT$CO_2E$ (or approximate 28.5 percent) reduction in BAU emissions was needed by 2020. In 2010, CARB prepared an updated 2020 forecast to account for the recession and slower forecasted growth. CARB determined that the economic downturn reduced the 2020 BAU by 55 MMT $CO_2E$; as a result, achieving the 1990 emissions level by 2020 would require a reduction in GHG emissions of 21.7 (not 28.5) percent from the 2020 BAU. California has been on track to achieve 1990 levels, and based on the GHG inventories shown in Table 2, has achieved the goal.

Approved in September 2016, Senate Bill (SB) 32 updates the California Global Warming Solutions Act of 2006 and enacts EO B-30-15. Under SB 32, the state would reduce its GHG emissions to 40 percent below 1990 levels by 2030. This is equivalent to an emissions level of approximately 260 MMT $CO_2E$ for 2030. In implementing the 40 percent reduction goal, CARB is required to prioritize emissions reductions to consider the social costs of the emissions of GHGs; where "social costs" is defined as "an estimate of the economic damages, including, but not limited to, changes in net agricultural productivity; impacts to public health; climate adaptation impacts, such as property damages from increased flood risk; and changes in energy system costs, per metric ton of greenhouse gas emission per year."

### 3.2.2.3 Climate Change Scoping Plan

As directed by the California Global Warming Solutions Act of 2006, in 2008, CARB adopted the *Climate Change Scoping Plan: A Framework for Change* (*Scoping Plan*), which identifies the main strategies California will implement to achieve the GHG reductions necessary to reduce forecasted business as usual (BAU) emissions in 2020 to the state's historic 1990 emissions level (CARB 2008). In November 2017, CARB released the 2017 Climate Change Scoping Plan Update, the Strategy for Achieving California's 2030 Greenhouse Gas Target (2017 Scoping Plan; CARB 2017a). The 2017 Scoping Plan identifies state strategies for achieving the state's 2030 interim GHG emissions reduction target codified by SB 32. Measures under the 2017 Scoping Plan Scenario build on existing programs such as the Low Carbon Fuel Standard, Advanced Clean Cars Program, Renewables Portfolio Standard (RPS), Sustainable Communities Strategy, Short-Lived Climate Pollutant Reduction

Strategy, and the Cap-and-Trade Program. Additionally, the 2017 Scoping Plan proposes new policies to address GHG emissions from natural and working lands.

#### 3.2.2.4 Regional Emissions Targets – Senate Bill 375

SB 375, the 2008 Sustainable Communities and Climate Protection Act, was signed into law in September 2008 and requires CARB to set regional targets for reducing passenger vehicle GHG emissions in accordance with the Scoping Plan. The purpose of SB 375 is to align regional transportation planning efforts, regional GHG reduction targets, and fair-share housing allocations under state housing law. SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a Sustainable Communities Strategy or Alternative Planning Strategy to address GHG reduction targets from cars and light-duty trucks in the context of that MPO's Regional Transportation Plan. Southern California Association of Governments (SCAG) is the region's MPO. In 2018, CARB set targets for the SCAG region of an 8 percent reduction in GHG emissions per capita from automobiles and light-duty trucks compared to 2005 levels by 2020 and a 19 percent reduction by 2035. These targets are periodically reviewed and updated.

#### 3.2.2.5 Renewables Portfolio Standard (RPS)

The RPS promotes diversification of the state's electricity supply and decreased reliance on fossil fuel energy sources. Renewable energy includes (but is not limited to) wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas. Originally adopted in 2002 with a goal to achieve a 20 percent renewable energy mix by 2020 (referred to as the "Initial RPS"), the goal has been accelerated and increased by EOs S-14-08 and S-21-09 to a goal of 33 percent by 2020. In April 2011, SB 2 (1X) codified California's 33 percent RPS goal. SB 350 (2015) increased California's renewable energy mix goal to 50 percent by year 2030. SB 100 (2018) further increased the standard set by SB 350 establishing the RPS goal of 44 percent by the end of 2024, 52 percent by the end of 2027, and 60 percent by 2030.

#### 3.2.2.6 Assembly Bill 341 – Solid Waste Diversion

The Commercial Recycling Requirements mandate that businesses (including public entities) that generate 4 cubic yards or more of commercial solid waste per week and multi-family residential with five units or more arrange for recycling services. Businesses can take one or any combination of the following in order to reuse, recycle, compost, or otherwise divert solid waste from disposal. Additionally, Assembly Bill (AB) 341 mandates that 75 percent of the solid waste generated be reduced, recycled, or composted by 2020.

#### 3.2.2.7 California Code of Regulations, Title 24 – California Building Code

The California Code of Regulations, Title 24, is referred to as the California Building Code, or CBC. It consists of a compilation of several distinct standards and codes related to building construction, including plumbing, electrical, interior acoustics, energy efficiency, handicap

accessibility, and so on. Of particular relevance to GHG reductions are the CBC's energy efficiency and green building standards as outlined below.

## a. Title 24, Part 6 – Energy Efficiency Standards

The California Code of Regulations, Title 24, Part 6 is the California Energy Efficiency Standards for Residential and Nonresidential Buildings (also known as the California Energy Code). This code, originally enacted in 1978, establishes energy-efficiency standards for residential and non-residential buildings in order to reduce California's energy consumption. The Energy Code is updated periodically to incorporate and consider new energy-efficient technologies and methodologies as they become available, and incentives in the form of rebates and tax breaks are provided on a sliding scale for buildings achieving energy efficiency above the minimum standards.

The current version of the Energy Code, known as 2019 Title 24, or the 2019 Energy Code, became effective January 1, 2020. The Energy Code provides mandatory energy-efficiency measures as well as voluntary tiers for increased energy efficiency. The California Energy Commission (CEC), in conjunction with the California Public Utilities Commission, has adopted a goal that all new residential and commercial construction achieve zero net energy by 2020 and 2030, respectively. It is expected that achievement of the zero net energy goal will occur via revisions to the Title 24 standards.

The 2019 Energy Code standards now apply to healthcare buildings such as the proposed project. New construction and major renovations must demonstrate their compliance with the current Energy Code through submission and approval of a Title 24 Compliance Report to the local building permit review authority and the CEC. The compliance reports must demonstrate a building's energy performance through use of CEC approved energy performance software that shows iterative increases in energy efficiency given the selection of various heating, ventilation, and air conditioning; sealing; glazing; insulation; and other components related to the building envelope. The CEC estimates that non-residential buildings will use 30 percent less energy through implementation of the 2019 Energy Code, mainly due to lighting upgrades.

## b. Title 24, Part 11 – California Green Building Standards

The California Green Building Standards Code, referred to as CALGreen, was added to Title 24 as Part 11 first in 2009 as a voluntary code, which then became mandatory effective January 1, 2011 (as part of the 2010 CBC). The most recent 2019 CALGreen institutes mandatory minimum environmental performance standards for all ground-up new construction of non-residential and residential structures. Local jurisdictions must enforce the minimum mandatory Green Building Standards and may adopt additional amendments for stricter requirements.

The mandatory standards require:

- Outdoor water use requirements as outlined in local water efficient landscaping ordinances or current Model Water Efficient Landscape Ordinance standards, whichever is more stringent;
- Requirements for water conserving plumbing fixtures and fittings;
- 65 percent construction/demolition waste diverted from landfills;
- Infrastructure requirements for electric vehicle charging stations;
- Mandatory inspections of energy systems to ensure optimal working efficiency; and
- Requirements for low-pollutant emitting exterior and interior finish materials such as paints, carpets, vinyl flooring, and particleboards.

Similar to the reporting procedure for demonstrating Energy Code compliance in new buildings and major renovations, compliance with the CALGreen mandatory requirements must be demonstrated through completion of compliance forms and worksheets.

## 3.2.3 Local

### 3.2.3.1 South Coast Air Quality Management District

The South Coast Air Quality Management District (SCAQMD) is the agency responsible for air quality planning and regulation in the South Coast Air Basin. The SCAQMD addresses the impacts to climate change of projects subject to SCAQMD permit as a lead agency if they are the only agency having discretionary approval for the project and acts as a responsible agency when a land use agency must also approve discretionary permits for the project. The SCAQMD acts as an expert commenting agency for impacts to air quality. This expertise carries over to GHG emissions, so the agency helps local land use agencies through the development of models and emission thresholds that can be used to address GHG emissions.

In 2008, SCAQMD formed a Working Group to identify GHG emissions thresholds for land use projects that could be used by local lead agencies in the South Coast Air Basin. The Working Group developed several different options that are contained in the SCAQMD Draft Guidance Document – *Interim CEQA GHG Significance Thresholds for Stationary Sources, Rules, and Plans*, that could be applied by lead agencies. The working group met again in 2010 to review the guidance. The SCAQMD Board has not approved the thresholds; however, the Guidance Document provides substantial evidence supporting the approaches to significance of GHG emissions that can be considered by the lead agency in adopting its own threshold. The current interim thresholds consist of the following tiered approach (SCAQMD 2008, 2010):

- Tier 1 – The project is exempt from the California Environmental Quality Act (CEQA).
- Tier 2 – The project is consistent with an applicable regional GHG emissions reduction plan. If a project is consistent with a qualifying local GHG reduction plan, it does not have significant GHG emissions.

- Tier 3 – Project GHG emissions represent an incremental increase below or mitigated to less than Significance Screening Levels, where
  - Residential/Commercial Screening Level
    - Option 1: 3,000 MT $CO_2E$ screening level for all residential/commercial land uses
    - Option 2: Screening level thresholds for land use type acceptable if used consistently by a lead agency:
      - Residential: 3,500 MT $CO_2E$
      - Commercial: 1,400 MT $CO_2E$
      - Mixed-Use: 3,000 MT $CO_2E$
  - 10,000 MT $CO_2E$ is the Permitted Industrial Screening Level
- Tier 4 – The project achieves performance standards, where performance standards may include:
  - Option 1: Percent emission reduction target. SCAQMD has no recommendation regarding this approach at this time.
  - Option 2: The project would implement substantial early implementation of measures identified in the CARB's Scoping Plan. This option has been folded into Option 3.
  - Option 3: SCAQMD Efficiency Targets.
    - 2020 Targets: 4.8 MT $CO_2E$ per service population (SP) for project-level analyses or 6.6 MT $CO_2E$ per SP for plan level analyses where service population includes residential and employment populations provided by a project.
    - 2035 Targets: 3.0 MT $CO_2E$ per SP for project-level analyses or 4.1 MT $CO_2E$ per SP for plan level analyses.
- Tier 5 – Offsets along or in combination with the above target Significance Screening Level. Offsets must be provided for a 30-year project life, unless the project life is limited by permit, lease, or other legally binding condition.

If a project complies with any one of these tiers, its impacts related to GHG emissions would be considered less than significant.

The SCAQMD's interim thresholds used the Executive Order S-3-05 year 2050 goal as the basis for the Tier 3 screening level. Achieving the EO's objective would contribute to worldwide efforts to cap $CO_2$ concentrations at 450 parts per million, thus stabilizing global climate.

SCAQMD only has authority over GHG emissions from development projects that include air quality permits. At this time, it is unknown if the project would include stationary sources of emissions subject to SCAQMD permits. Notwithstanding, if the project requires a stationary permit, it would be subject to the applicable SCAQMD regulations.

SCAQMD Regulation XXVII, adopted in 2009 includes the following rules:

- Rule 2700 defines terms and post global warming potentials.
- Rule 2701, SoCal Climate Solutions Exchange, establishes a voluntary program to encourage, quantify, and certify voluntary, high quality certified GHG emission reductions in the SCAQMD.
- Rule 2702, GHG Reduction Program created a program to produce GHG emission reductions within the SCAQMD. The SCAQMD will fund projects through contracts in response to requests for proposals or purchase reductions from other parties.

#### 3.2.3.2 Southern California Association of Governments

In September 2020, SCAG adopted Connect SoCal, the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). The Connect SoCal plan identifies that land use strategies that focus on new housing and job growth in areas with a variety of destinations and mobility options would support and complement the proposed transportation network. The overarching strategy in Connect SoCal is to provide for a plan that allows the southern California region to grow in more compact communities in transit priority areas and priority growth areas; provide neighborhoods with efficient and plentiful public transit; establish abundant and safe opportunities to walk, bike, and pursue other forms of active transportation; and preserve more of the region's remaining natural lands and farmlands (SCAG 2020). The Connect SoCal plan contains transportation projects to help more efficiently distribute population, housing, and employment growth as well as projected development that promotes active transport and reduces GHG emissions.

#### 3.2.3.3 Western Riverside Council of Governments

The City is a participant in the Western Riverside Council of Government's (WRCOG) Subregional Climate Action Plan (CAP) (WRCOG 2014). The Subregional CAP includes strategies to help the region achieve GHG emissions reduction goals along with other economic and environmental benefits. The CAP contains GHG reduction measures related to energy, transportation and land use, solid waste, and water. The CAP establishes a community-wide emissions reduction target of 15 percent below 2010 emission levels, following guidance from CARB and the Governor's Office of Planning and Research. The CAP does not establish a reduction target for year 2035 or future years; however, the CAP identifies a reduction goal of 49 percent below baseline (2010) emissions levels to set the WRCOG subregion on a trajectory to meet targets identified in SB 375 and EO 2-3-05.

# 4.0 Significance Criteria and Analysis Methodologies

## 4.1 Determining Significance

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

1. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
2. Conflict with the City's CAP or an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of GHGs.

The CEQA Guidelines allow lead agencies to establish significance thresholds for their respective jurisdictions. These significance thresholds may be adopted after considering thresholds of significance adopted or recommended by other public agencies or experts.

The City has not adopted its own GHG Thresholds of Significance for CEQA. The SCAQMD published its *Interim CEQA GHG Significance Thresholds for Stationary Sources, Rules, and Plans* in 2008 (SCAQMD 2008, 2010). The interim thresholds are a tiered approach; projects may be determined to be less than significant under each tier or require further analysis under subsequent tiers. The five tiers are discussed in Section 3.2.3.1.

Consistent with the SCAQMD guidance, the recommended tiered approach for land use development projects in SCAQMD jurisdiction is assessment against the applicable screening levels. The main source of emissions associated with the project would be the permitted stationary sources associated with the Central Utility Plant. Therefore, the SCAQMD screening threshold of 10,000 MT $CO_2E$ for permitted industrial uses was used. This screening level is intended to exempt projects that are too small to have significant impacts from further analysis. For projects including a stationary source, emissions calculations must also include construction emissions and operational emissions associated with mobile sources, electricity use, water delivery, and other non-stationary sources associated with the facility to ensure all GHG emissions are included in the evaluation. Therefore, emissions from all construction and operational sources were calculated and compared to the screening threshold.

## 4.2 Calculation Methodology

The project's GHG emissions were calculated using the CalEEMod Version 2016.3.2 (California Air Pollution Control Officers Association [CAPCOA] 2017). The CalEEMod program is a tool used to estimate air emissions resulting from land development projects based on California-specific emission factors. CalEEMod can be used to calculate emissions from mobile (on-road vehicles), area (fireplaces, consumer products [cleansers, aerosols, and solvents], landscape maintenance equipment, architectural coatings), water and wastewater, and solid waste sources. GHG emissions are estimated in terms of total MT $CO_2E$.

The analysis methodology and input data are described in the following sections. Where project-specific data was not available, model inputs were based on information provided in the CalEEMod User's Guide (CAPCOA 2017). Operational emissions were calculated for the projected soonest project operational year of 2026. A portion of the existing hospital would be demolished as a part of the project, and GHG emissions associated with this portion of the existing hospital would no longer be emitted. To determine the project's net increase in GHG emissions, emissions associated with this portion of the hospital were subtracted from the GHG emissions associated with the new construction.

### 4.2.1 Construction Emissions

Construction activities emit GHGs primarily though combustion of fuels (mostly diesel) in the engines of off-road construction equipment and through combustion of diesel and gasoline in on-road construction vehicles and the commute vehicles of the construction workers. Smaller amounts of GHGs are also emitted through the energy use embodied in water use for fugitive dust control.

Every phase of the construction process, including demolition, grading, paving, and building, emits GHGs in volumes directly related to the quantity and type of construction equipment used when building the project. GHG emissions associated with each phase of project construction are calculated by multiplying the total fuel consumed by the construction equipment and worker trips by applicable emission factors. The number and pieces of construction equipment are calculated based on the project-specific design. In the absence of project-specific construction information, equipment for all phases of construction is estimated based on the project size.

Standard construction equipment includes dozers, rollers, scrapers, backhoes, loaders, paving equipment, delivery/haul trucks, jacking equipment, welding machines, and so on. Duration of each individual construction phase was based on a construction schedule that is anticipated to last approximately five years. Specific equipment parameters are not available at this time. However, CalEEMod can estimate the required construction equipment when project-specific information is unavailable. The construction equipment estimates are based on surveys of typical construction projects performed by the SCAQMD and the Sacramento Metropolitan Air Quality Management District that provide a basis for scaling equipment needs and schedule with a project's size. CalEEMod default construction equipment was modeled for each phase with the exception of the remodeling/renovation phases. For these phases, cranes and heavy tractors were removed. Construction activities would also include the demolition of Building C (12,800 square feet) and Buildings H through I (95,000 square feet). An additional 40,000 square feet of building demolition was modeled to account for hauling of remodeling/renovation debris. Additionally, project earthwork would consist of a net export of approximately 1,200 cubic yards of soil.

Table 4 summarizes the anticipated construction schedule, phases, and duration, as well as the modeled construction equipment.

| Table 4<br>Construction Phases and Equipment | | |
|---|---|---|
| Equipment | Quantity | Daily Operation Time (Hours) |
| Building A Remodel for Building C Relocation<br>March 30, 2021 – September 24 2021 (129 days) | | |
| Forklift | 3 | 8 |
| Generator Set | 1 | 8 |
| Welder | 1 | 8 |
| Central Utility Plant Site Clearing<br>February 23, 2022 – March 24, 2022 (22 days) | | |
| Rubber Tired Dozer | 1 | 8 |
| Tractor/Loader/Backhoe | 1 | 8 |
| Central Utility Plant Construction<br>March 25, 2022 – May 8, 2023 (292 days) | | |
| Crane | 1 | 7 |
| Forklift | 3 | 8 |
| Generator Set | 1 | 8 |
| Tractor/Loader/Backhoe | 3 | 7 |
| Welder | 1 | 8 |
| Building I Renovation<br>April 23, 2022 – November 28, 2022 (164 days) | | |
| Forklift | 3 | 8 |
| Generator Set | 1 | 8 |
| Welder | 1 | 8 |
| Building C Demolition<br>November 1, 2021 – March 10, 2022 (94 days) | | |
| Concrete/Industrial Saw | 1 | 8 |
| Excavators | 3 | 8 |
| Rubber Tired Dozers | 2 | 8 |
| New Tower Site Preparation<br>March 11, 2022 – March 31, 2022 (15 days) | | |
| Rubber Tired Dozer | 3 | 8 |
| Tractor/Loader/Backhoe | 4 | 8 |
| New Tower Grading<br>April 1, 2022 – May 12, 2022 (30 days) | | |
| Excavator | 1 | 8 |
| Grader | 1 | 8 |
| Rubber Tired Dozer | 1 | 8 |
| Tractor/Loader/Backhoe | 3 | 8 |
| New Tower Construction<br>May 19, 2022 – August 9, 2024 (582 days) | | |
| Crane | 1 | 7 |
| Forklifts | 3 | 8 |
| Generator Set | 1 | 8 |
| Tractors/Loaders/Backhoes | 3 | 7 |
| Welder | 1 | 8 |
| New Tower Architectural Coatings<br>April 14, 2023 – August 9, 2024 (84 days) | | |
| Air Compressor | 1 | 8 |

| Table 4<br>Construction Phases and Equipment | | |
|---|---|---|
| Equipment | Quantity | Daily Operation Time (Hours) |
| Building A Canopy<br>February 27, 2023 – September 20, 2023 (148 days) | | |
| Crane | 1 | 7 |
| Forklifts | 3 | 8 |
| Generator Set | 1 | 8 |
| Tractors/Loaders/Backhoes | 3 | 7 |
| Welder | 1 | 8 |
| Building A Renovations<br>February 27, 2023 – September 20, 2023 (148 days) | | |
| Forklifts | 1 | 8 |
| Generator Set | 1 | 8 |
| Welder | 1 | 8 |
| Building A Construction – Post Occupancy<br>May 29, 2025 – September 19, 2025 (82 days) | | |
| Forklifts | 3 | 8 |
| Generator Set | 1 | 8 |
| Welder | 1 | 8 |
| Buildings B-H Demolition<br>June 6, 2025 – December 12, 2025 (136 days) | | |
| Concrete/Industrial Saw | 1 | 8 |
| Excavators | 3 | 8 |
| Rubber Tired Dozers | 2 | 8 |
| South Parking Lot<br>October 4, 2024 – January 30, 2025 (85 days) | | |
| Paver | 2 | 8 |
| Paving Equipment | 2 | 8 |
| Roller | 2 | 8 |
| East Parking Lot<br>December 15, 2025 – April 21, 2026 (92 days) | | |
| Paver | 2 | 8 |
| Paving Equipment | 2 | 8 |
| Roller | 2 | 8 |
| NOTE: Each phase would also include vehicles associated with work commutes, dump trucks for hauling, and trucks for deliveries. | | |

Based on guidance from the SCAQMD, total construction GHG emissions resulting from a project should be amortized over 30 years and added to operational GHG emissions to account for their contribution to GHG emissions over the lifetime of a project (SCAQMD 2009).

### 4.2.2 Mobile Emissions

GHG emissions from vehicles come from the combustion of fossil fuels in vehicle engines. The vehicle emissions are calculated based on the vehicle type and the trip rate for each land use. Mobile source operational emissions are based on the trip rate, trip length, and vehicle mix. Based on the Traffic Impact Analysis prepared for the project, the project would generate 2,232 daily trips while the existing portion of the hospital that would be demolished generate 402 daily trips, for a net increase of 1,830 daily trips (Linscott, Law & Greenspan 2021).

CalEEMod default trip lengths were modeled. The CalEEMod default vehicle emission factors are based on CARB's EMFAC2014 model. More recent versions of the model have been released including EMFAC2017, which has been approved for use by the U.S. EPA, and EMFAC2020, which has not yet been reviewed by the U.S. EPA. EMFAC2017 includes several corrections in emission rates that reflect lower vehicle turnover and vehicle non-compliance. As a result, some emissions for some vehicle categories are higher in EMFAC2017 than EMFAC2014. The updated emission factors have not yet been incorporated into CalEEMod, and there is no standardized approach to modifying the emission factors included in CalEEMod. However, the difference in emission factors are not anticipated to result in an increase in mobile source emissions that would result in an exceedance of the SCAQMD screening threshold (as shown in Table 6 below). Therefore, mobile source emissions are based on EMFAC2014 emission factors.

It should also be noted that GHG emissions result from the combustion of fuel in helicopters. The existing hospital has a helicopter pad that is located at the northern project boundary adjacent to Inland Valley Drive. Based on previous data provided regarding flight operations, a maximum of two flights have taken place between the daytime hours of 7:00 a.m. and 10:00 p.m. on any given day and a maximum of one flight has taken place between the nighttime hours of 10:00 p.m. and 7:00 a.m. on any given day. The project would relocate the helicopter pad to the western project boundary adjacent to I-15. The expansion of the hospital itself would not result in an increase in the number of emergency or transport helicopter trips in the region, since the flight is based on the location of emergencies, needs of the patients, and services provided by the hospital. Relocation of the helipad and expansion of the hospital is not anticipated to result in an increase in helicopter trips.

### 4.2.3 Energy Use Emissions

GHGs are emitted as a result of activities in buildings for which electricity and natural gas are used as energy sources. GHGs are emitted during the generation of electricity from fossil fuels off-site in power plants. These emissions are considered indirect but are calculated in association with a building's overall operation. Electric power generation accounts for the second largest sector contributing to both inventoried and projected statewide GHG emissions. Combustion of fossil fuel emits criteria pollutants and GHGs directly into the atmosphere. When this occurs in a building, it is considered a direct emissions source associated with the building. CalEEMod estimates emissions from the direct combustion of natural gas for space and water heating.

CalEEMod estimates GHG emissions from energy use by multiplying average rates of residential and non-residential energy consumption by the quantities of residential units and non-residential square footage entered in the land use module to obtain total projected energy use. This value is then multiplied by electricity and natural gas GHG emission factors applicable to the project location and utility provider.

Energy consumption values are based on the CEC sponsored California Commercial End Use Survey and Residential Appliance Saturation Survey studies, which identify energy use by building type and climate zone. Because these studies are based on older buildings,

adjustments have been made in CalEEMod to account for changes to Title 24 Building Codes. CalEEMod 2016.3.2 is based on the 2016 Title 24 energy code (Part 6 of the Building Code). The next version of the energy code, 2019 Title 24, went into effect on January 1, 2020. For non-residential buildings, it is estimated that the 2019 standards will decrease electricity consumption by 10.7 percent and natural gas consumption by 1 percent (NORESCO 2018). The project would be subject to the 2019 Title 24 energy code standards. For the existing buildings that would be demolished, GHG emissions were calculated using historic energy consumption data.

Electricity would be provided to the project by Southern California Edison (SCE). Therefore, SCE's specific energy-intensity factors (i.e., the amount of $CO_2$, $CH_4$, and $NO_X$ per kilowatt-hour) are used in the calculations of GHG emissions. Statewide RPS goals are summarized in Section 3.2.2.5. This analysis derives energy intensity factors from SCE's *Sustainability Report 2019* (Edison International 2020), which indicates that in 2019 SCE generated 534 pounds of $CO_2E$ for each megawatt-hour of electricity delivered and SCE had achieved 35 percent renewables. Additionally, SCE will achieve at least 44 percent renewables by 2024 and 52 percent by 2027 as required by the RPS. Energy-intensity factor calculations that reflect the increase in renewable resources is provided in Attachment 1.

### 4.2.4 Area Source Emissions

Area sources include GHG emissions that would occur from the use of landscaping equipment. The use of landscape equipment emits GHGs associated with the equipment's fuel combustion. The landscaping equipment emission values were derived from the 2011 In-Use Off-Road Equipment Inventory Model (CARB 2011).

### 4.2.5 Water and Wastewater Emissions

The Western Municipal Water District would provide water to the project site. The amount of water used and wastewater generated by a project has indirect GHG emissions associated with it. These emissions are a result of the energy used to supply, distribute, and treat the water and wastewater. In addition to the indirect GHG emissions associated with energy use, wastewater treatment can directly emit both $CH_4$ and $N_2O$.

The indoor and outdoor water use consumption data for each land use subtype comes from the Pacific Institute's Waste Not, Want Not: The Potential for Urban Water Conservation in California 2003 (as cited in CAPCOA 2017). Based on that report, a percentage of total water consumption was dedicated to landscape irrigation, which is used to determine outdoor water use. Wastewater generation was similarly based on a reported percentage of total indoor water use (CAPCOA 2017).

The project would be subject to CALGreen, which requires a 20 percent increase in indoor water use efficiency. As a conservative analysis, no reduction in indoor water use was modeled.

In addition to water reductions under CALGreen, the GHG emissions from the energy used to transport the water are affected by RPS. As discussed previously, to account for the effects

of RPS through project opening year, the energy-intensity factors included in CalEEMod were adjusted to reflect RPS goals of 44 percent renewable energy by 2024 and 52 percent by 2027.

### 4.2.6 Solid Waste Emissions

The disposal of solid waste produces GHG emissions from anaerobic decomposition in landfills, incineration, and transportation of waste. To calculate the GHG emissions generated by disposing of solid waste for the project, the total volume of solid waste was calculated using waste disposal rates identified by California Department of Resources Recycling and Recovery (CalRecycle). The methods for quantifying GHG emissions from solid waste are based on the Intergovernmental Panel on Climate Change method, using the degradable organic content of waste. GHG emissions associated with the project's waste disposal were calculated using these parameters. According to a CalRecyle report to the Legislature, as of 2013 California has achieved a statewide 50 percent diversion of solid waste from landfills through "reduce/recycle/compost" programs (CalRecycle 2015). However, AB 341 mandates that 75 percent of the solid waste generated be reduced, recycled, or composted by 2020. However, as a conservative analysis, emissions were calculated using default solid waste generation rates with no additional waste diversion.

### 4.2.7 Stationary Sources

As discussed, there is an existing Central Utility Plant on the project site. The equipment in the existing Central Utility Plant includes air cooled chillers, chilled water pumps, three gas-fired boilers, heating water pumps, and three emergency generators (600 kilowatts [kW], 400 kW, and 150 kW). The new Central Utility Plant equipment would include two 1,500 kW emergency generators, three 600-ton water cooled chillers, three 600-ton cooling towers, chilled and condenser water pumps, and ventilation, heating, and cooling systems. Additionally, three new 6,000 MBH boilers would be installed on the new tower roof. The new Central Utility Plant is anticipated to come on-line in mid-2023, and would not operate at full capacity until after the new tower is both on-line and fully occupied. The existing Central Utility Plant will remain on-line until mid-2025, at which point it would be decommissioned and demolished.

The analysis of potential GHG impacts presented here only addresses those pieces of equipment that are a part of the project that would generate GHG emissions, which would be the emergency generators and boilers.

As discussed, the project would include two 1,500 kW emergency generators. As with the existing emergency generators, these generators would operate in the case of a power outage, and would be tested monthly for up to one hour at 50 percent capacity. Emissions due to monthly testing were calculated using U.S EPA AP-42 emission factors and CARB regulations, as included in CalEEMod (CAPCOA 2016). To obtain worst-case daily emissions, it was assumed that both generators would be tested on the same day.

The project would include three 6,000 MBH boilers. Not all boilers would operate at 100 percent capacity at all times. Typically, one boiler would operate at full capacity, a second

would provide additional capacity during extreme weather days, and the third would serve as a standby unit. However, as a conservative air quality analysis, emissions due to all three boilers operating at full capacity were modeled. Emissions due to the boilers were calculated using emission factors included in the equipment specifications and U.S. EPA AP-42 emission factors.

# 5.0 GHG Emission Calculations

Based on the methodology summarized in Section 4.2, the primary sources of direct and indirect GHG emissions have been calculated. Table 5 summarizes the total construction emissions. Table 6 summarizes the total GHG emissions associated with the project, the existing buildings that would be demolished, and the net increase. The complete model outputs are included in Attachment 1.

**Table 5**
**Construction GHG Emissions**

| Year | Construction GHG Emissions MT $CO_2E$ |
|---|---|
| 2021 | 373 |
| 2022 | 1,660 |
| 2023 | 1,702 |
| 2024 | 500 |
| 2025 | 465 |
| 2026 | 84 |
| **Total GHG Emissions** | **4,784** |
| **Amortized Over 30 Years** | **159** |
| MT $CO_2E$ = metric tons of carbon dioxide equivalent | |

**Table 6**
**Summary of Project GHG Emissions (MT $CO_2E$)**

| Source | Existing Buildings to be Demolished | Proposed Project | Net Increase |
|---|---|---|---|
| Mobile | 510 | 2,836 | 2,326 |
| Energy Source | 913 | 1,755 | 842 |
| Area Sources | <1 | <1 | <1 |
| Water/Wastewater Sources | 7 | 32 | 25 |
| Solid Waste Sources | 26 | 147 | 120 |
| Construction (Amortized over 30 years) | 0 | 159 | 159 |
| Emergency Generators | Not Calculated | 13 | 13 |
| Boilers | Not Calculated | 4,209 | 4,209 |
| **Total** | **1,457** | **9,152** | **7,695** |
| *SCAQMD Significance Threshold* | | | *10,000* |
| MT $CO_2E$ = metric tons of carbon dioxide equivalent | | | |

As shown in Table 6, the existing buildings that would be demolished emit 1,457 MT $CO_2E$ annually. Since these buildings would be removed as a part of the project, they would no

longer be a source of GHG emissions. The project would emit 9,152 MT $CO_2E$ annually. Thus, the project would result in a net increase of 7,695 MT $CO_2E$ annually. As these emissions would be less than the SCAQMD screening threshold of 10,000 MT $CO_2E$, GHG emissions associated with the project would be less than significant. Note that there are existing emergency generators and boilers within the existing Central Utility Plant that would be decommissioned once the new Central Utility Plant is on-line. Once they are decommissioned, they would no longer be a source of emissions and the project's net increase in emissions would be less than what is summarized in Table 6.

# 6.0 GHG Impact Analysis

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

As discussed previously, this analysis uses SCAQMD's *Interim CEQA GHG Significance Thresholds for Stationary Sources, Rules, and Plans*. The interim thresholds are a tiered approach; project impacts may be determined to be less than significant under each tier or require further analysis under subsequent tiers. Because the project is subject to CEQA and is not subject to a regional GHG emissions reduction plan, the project does not fall under Tiers 1 or 2. As shown in Table 6, construction and operation of the project would result in a net increase in emissions of 7,695 MT $CO_2E$ annually. Project GHG emissions would be less than the applicable SCAQMD screening level of 10,000 MT $CO_2E$. As project emissions would be less than the 10,000 MT $CO_2E$ screening level, GHG emissions impacts would be less than significant without mitigation.

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

As discussed in Section 3.2.2, State Climate Change Regulations, EO S-3-05 established GHG emission reduction targets for the state, and AB 32 launched the CARB Climate Change Scoping Plan that outlined the reduction measures needed to reach the 2020 target. As discussed above, the project emissions would be below the screening level of 10,000 MT $CO_2E$ for stationary sources. This threshold is based on the concept of establishing a 90 percent GHG emission capture rate. A 90 percent emission capture rate means that 90 percent of total emissions from all new or modified stationary source projects would be subject to a CEQA analysis, which includes analyzing feasible alternatives and imposing feasible mitigation measures. The market capture rate is based on guidance from the California Air Pollution Control Officers Association (CAPCOA) report CEQA & Climate Change, dated January 2008, which identifies several potential approaches for assessing a project's GHG emissions (CAPCOA 2008). Following the market capture rate approach, a lead agency defines an acceptable capture rate and identifies the corresponding emissions level. Following rationale presented in the CAPCOA Guidance, the aggregate emissions from all projects with individual annual emissions that are equal to or less than the identified market capture rate would not impede achievement of the state GHG emissions reduction targets codified by AB 32 (2006) and SB 32 (2016), and impacts under CEQA would therefore be less than cumulatively considerable. A 90 percent emission capture rate sets the emission

threshold low enough to capture a substantial fraction of future stationary source projects that will be constructed to accommodate future statewide population and economic growth, while setting the emission threshold high enough to exclude small projects that will in aggregate contribute a relatively small fraction of the cumulative statewide GHG emissions.

Project GHG emissions would be less than the applicable SCAQMD screening level of 10,000 MT $CO_2E$. Further, project emissions would decline beyond the buildout year of the project, 2026, as a result of continued implementation of federal, state, and local reduction measures such as increased federal and state vehicle efficiency standards, and SCE's increased renewable sources of energy in accordance with RPS goals. Based on currently available models and regulatory forecasting, project emissions would continue to decline through at least 2050. Given the reasonably anticipated decline in project emissions, once fully constructed and operational, the project is in line with the GHG reductions needed to achieve the 2050 GHG emission reduction targets identified by EO S-3-05.

As noted in Section 3.2.2.3, the 2017 Scoping Plan identifies state strategies for achieving the state's 2030 interim GHG emissions reduction target codified by SB 32. Measures under the 2017 Scoping Plan scenario build on existing programs such as the Low Carbon Fuel Standard, Advanced Clean Cars Program, RPS, Sustainable Communities Strategy, Short-Lived Climate Pollutant Reduction Strategy, and the Cap-and-Trade Program. The project would comply with all applicable provisions contained in the 2017 Scoping Plan since the adopted regulations would apply to new development or the emission sectors associated with new development.

- **Transportation** – State regulations and 2017 Scoping Plan measures that would reduce the project's mobile source emissions include the California Light-Duty Vehicle GHG Standards (AB 1493/Pavley I and II), and the Low Carbon Fuel Standard, and the heavy-duty truck regulations. These measures are implemented at the state level and would result in project-related mobile source GHG emissions.

- **Energy** – State regulations and 2017 Scoping Plan measures that would reduce the project's energy-related GHG emissions include RPS (see Section 3.2.2.5), Title 24 Energy Efficiency Standards (see Section 3.2.2.7a), and CALGreen (see Section 3.2.2.7b). The project would be served by SCE, which has achieved 38 percent renewables as of 2019 and is required to achieve 44 percent by 2024, prior to project operation. The project's energy related GHG emissions would decrease as SCE increases its renewables procurement towards the 2030 goal of 60 percent. Additionally, the project would be constructed in accordance with energy efficiency standards effective at the time building permits are issued. The current 2019 Energy Code is estimated to decrease energy consumption by 30 percent for non-residential buildings when compared to the 2016 Title 24 Energy Code.

- **Water** – State regulations and 2017 Scoping Plan measures that would reduce the project's electricity consumption associated with water supply, treatment, and distribution, and wastewater treatment include RPS, CALGreen, and the Model Water Efficient Landscape Ordinance. The project would be required to reduce indoor

water consumption by 20 percent in accordance with CALGreen. Additionally, the project would be subject to all City landscaping ordinance requirements.

- **Waste** – State regulations and 2017 Scoping Plan measures that would reduce the project's solid waste-related GHG emissions are related to landfill methane control, increases efficiency of landfill methane capture, and high recycling/zero waste. The project would be subject to CALGreen, which requires a diversion of construction and demolition waste from landfills. Additionally, the project would include recycling storage and would divert waste from landfills in accordance with AB 341.

In addition to meeting the SCAQMD screening thresholds, the project was evaluated for consistency with the SCS strategies contained in Connect SoCal. As discussed in Table 7 below, the project would be consistent with applicable Connect SoCal strategies, particularly by providing expanded health services to the existing and projected population. The project would be required to comply with the regulations discussed above that have been adopted to implement the Scoping Plan and to achieve the SB 32 2030 target. As a result, the project would not conflict with applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions. Impacts would be less than significant and not require mitigation.

**Table 7**
**Project Consistency with Connect SoCal Strategies**

| | Project Consistency |
|---|---|
| **Focus Growth Near Destinations and Mobility Options** | |
| • Emphasize land use patterns that facilitate multimodal access to work, educational, and other destinations.<br>• Focus on a regional jobs/housing balance to reduce commute times and distances and expand job opportunities near transit and along center-focused main streets.<br>• Plan for growth near transit investments and support implementation of first/last mile strategies.<br>• Promote the redevelopment of underperforming retail developments and other outmoded nonresidential uses.<br>• Prioritize infill and redevelopment of underutilized land to accommodate new growth, increase amenities and connectivity in existing neighborhoods.<br>• Encourage design and transportation options that reduce the reliance on and number of solo car trips (this could include mixed uses or locating and orienting close to existing destinations).<br>• Identify ways to "right size" parking requirements and promote alternative parking strategies (e.g., shared parking or smart parking). | The project is surrounded by medical, commercial, and residential uses. The project would expand an existing hospital, thereby increasing its capacity, creating additional jobs on-site and providing expanded health services to the existing population. Transportation/shuttle services at the hospital are available. As a hospital use where easy patient access is necessary, the project would meet the City's parking requirements. However, the project site is served by an existing bus route immediately adjacent to the project site. The project would also provide secure bicycle parking.<br><br>Further, the project site is located adjacent to a priority growth area (PGA) corridor located west of Interstate 15 as identified in Connect SoCal. From 2016 to 2045, 64 percent of new households and 74 percent of new jobs will occur in PGAs. Increase hospital capacity adjacent to a PGA would accommodate population growth in the adjacent PGA by providing increased medical care closer to residents. |

| Table 7<br>Project Consistency with Connect SoCal Strategies | |
|---|---|
| | Project Consistency |
| **Promote Diverse Housing Options** | |
| • Preserve and rehabilitate affordable housing and prevent displacement.<br>• Identify funding opportunities for new workforce and affordable housing development.<br>• Create incentives and reduce regulatory barriers for building context sensitive accessory dwelling units to increase housing supply.<br>• Provide support to local jurisdictions to streamline and lessen barriers to housing development that supports reduction of greenhouse gas emissions. | The project is not a residential project and therefore these strategies do not apply to the project. |
| **Leverage Technology Innovations** | |
| • Promote low emission technologies such as neighborhood electric vehicles, shared ride hailing, car sharing, bike sharing and scooters by providing supportive and safe infrastructure such as dedicated lanes, charging and parking/drop-off space.<br>• Improve access to services through technology, such as telework and telemedicine as well as other incentives such as a mobility wallet.<br>• Identify ways to incorporate micro-power grids in communities, for example solar energy, hydrogen fuel cell power storage and power generation. | Transportation/shuttle services at the hospital are available. The project would also improve the hospital entrance and drop-off/pick-up area at the new hospital tower. The project site is served by an existing bus route immediately adjacent to the project site, and the project would also provide secure bicycle parking.<br><br>In regards to telecommuting, the project is a hospital expansion which would require employees to physically be on-site for patient care. However, doctors may provide telemedicine options for their patients, thereby reducing the number of patient vehicle trips particularly for routine appointments and check-ups that do not require the patient to be physically present at the hospital.<br><br>The project would also include a new Central Utility Plant that would replace the existing Central Utility Plant and include newer and more efficient equipment and machinery. |
| **Support Implementation of Sustainable Policies** | |
| • Pursue funding opportunities to support local sustainable development implementation projects that reduce greenhouse gas emissions.<br>• Support statewide legislation that reduces barriers to new construction and that incentivizes development near transit corridors and stations.<br>• Support local jurisdictions in the establishment of EIFDs, CRIAS, or other tax increment or value capture tools to finance sustainable infrastructure and | These strategies are not directly applicable to the project. The project would not interfere with SCAG's efforts to work with local jurisdictions, communities, and other planning organizations to implement sustainable policies. |

| Table 7<br>Project Consistency with Connect SoCal Strategies | |
|---|---|
| | Project Consistency |
| development projects including parks and open space.<br>• Work with local jurisdictions/communities to identify opportunities and assess barriers for implementing sustainability strategies.<br>• Enhance partnerships with other planning organizations to promote resources and best practices in the SCAG region.<br>• Continue to support long range planning efforts by local jurisdictions.<br>• Provide educational opportunities to local decisions makers and staff on new tools, best practices and policies related to implementing the Sustainable Communities Strategy. | |
| **Promote a Green Region** | |
| • Support development of local climate adaptation and hazard mitigation plans as well as project implementation that improves community resiliency to climate change and natural hazards.<br>• Support local policies for renewable energy production, reduction of urban heat islands and carbon sequestration.<br>• Integrate local food production into the regional landscape.<br>• Promote more resource efficient development focused on conservation, recycling and reclamation.<br>• Preserve, enhance and restore regional wildlife connectivity.<br>• Reduce consumption of resource areas, including agricultural land.<br>• Identify ways to improve access to public park space. | Strategies regarding climate adaptation, food production, wildlife connectivity, agricultural lands, and park space are not applicable to the project. However, the project would support energy conservation, a reduction in heat islands, and recycling efforts. The project would be constructed in accordance with energy efficiency standards effective at the time building permits are issued. The current 2019 Energy Code is estimated to decrease energy consumption when compared to the 2016 Title 24 Energy Code. The project would be served by SCE, which has achieved 38 percent renewables as of 2019, and is required to achieve 44 percent by 2024 prior to project operation. The project's energy-related GHG emissions would decrease as SCE increases its renewables procurement beyond 2020 towards the 2030 goal of 60 percent. Project-related C&D waste would be sorted, recycled, and diverted from landfills in accordance with mandatory regulatory requirements. The project landscaping plan would include shade trees and reduce the heat island effect. |

# 7.0 Conclusions

GHG emissions would result from construction and operation of the project. Construction activities emit GHGs primarily though the combustion of fuels in on- and off-road equipment and vehicles. Operational emissions include mobile, energy (electricity and natural gas), area (landscape maintenance equipment), water and wastewater, and solid waste sources, as well

as stationary sources associated with the Central Utility Plant. GHG emission associated with construction and operation of the project were calculated and compared to the SCAQMD annual screening threshold of 10,000 MT $CO_2E$ for stationary sources. This threshold is based on the concept of establishing a GHG emission market capture rate. Following rationale presented in the CAPCOA Guidance, the aggregate emissions from all projects with individual annual emissions that are equal to or less than the identified market capture rate would not impede achievement of the state GHG emissions reduction targets codified by AB 32 (2006) and SB 32 (2016), and impacts under CEQA would, therefore, be less than cumulatively considerable. As shown in Table 6, the project would result in a net increase of 7,695 MT $CO_2E$ per year. As project emissions would be less than the 10,000 MT $CO_2E$ screening level, GHG emissions impacts would be less than significant. Additionally, the project would be consistent with applicable 2017 Scoping Plan and Connect SoCal measures, and is in line with the GHG reductions needed to achieve the 2050 GHG emission reduction targets identified by EO S-3-05. GHG impacts would be less than significant without mitigation.

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# ATTACHMENT 1

# GHG Emission Calculations and CalEEMod Output

**GHG Emissions Summary**

| | Existing Hospital to be Removed | Proposed Project | Net Increase |
|---|---|---|---|
| Mobile | 510 | 2,836 | 2,326 |
| Energy | 913 | 1,755 | 842 |
| Area | 0 | 0 | 0 |
| Water | 7 | 32 | 25 |
| Waste | 26 | 147 | 120 |
| Construction (Amortized Over 30 Years) | 0 | 159 | 159 |
| Emergency Generators | Not Calculated | 13 | 13 |
| Boilers | Not Calculated | 4,209 | 4,209 |
| Total | 1,457 | 9,152 | 7,695 |

| Construction Emissions | MT CO2E/Year |
|---|---|
| 2021 | 373 |
| 2022 | 1,660 |
| 2023 | 1,702 |
| 2024 | 500 |
| 2025 | 465 |
| 2026 | 84 |
| Total | 4,784 |

**Kohler Diesel Generator KD1500**

| | | |
|---|---|---|
| Genset Power rating @ 0.8 pf | 1875 | kVA |
| Genset Power rating with fan | 1500 | ekW |
| | | |
| Assumed generator efficiency | 95% | |
| | | |
| Engine Power: | | |
| 100% Load | 1578.947 | bkW |
| 75% Load | 1184.211 | bkW |
| 50% Load | 789.4737 | bkW |
| | | |
| Engine Power: | | |
| 100% Load | 2117.403 | bhp |
| 75% Load | 1588.052 | bhp |
| 50% Load | 1058.702 | bhp |

| Fuel Consumption: | | | Ref. |
|---|---|---|---|
| 100% Load | 105.9 | gal/hr | 1 |
| 75% Load | 83.5 | gal/hr | 1 |
| 50% Load | 58.6 | gal/hr | 1 |
| 25% Load | 32.8 | gal/hr | 1 |

50% load per project electrical engineer

| | | | | Emission Rate (g/hour) | | | Emission Rate (lbs/hour) | | | Max Daily | | Annual | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | 1 Generator | 2 Generators | 1 Generator | 2 Generators |
| Pollutant | Emission Factor | Units | Emission Factor Source | 100% Load | 75% Load | 50% Load | 100% Load | 75% Load | 50% Load | lbs/hour, 50% load | | MT/year, 50% load | |
| ROG | 0.002248 | lb/hp-hr | 2 | 2,159.06 | 1,619.30 | 1,079.53 | 4.76 | 3.57 | 2.38 | 2.38 | 4.76 | | |
| NOx | 4.56 | g/hp-hr | 2 | 9,655.36 | 7,241.52 | 4,827.68 | 21.29 | 15.96 | 10.64 | 10.64 | 21.29 | | |
| CO | 2.6000 | g/hp-hr | 2 | 5,505.25 | 4,128.94 | 2,752.62 | 12.14 | 9.10 | 6.07 | 6.07 | 12.14 | | |
| SO2 | 0.0049 | g/hp-hr | 2 | 10.38 | 7.78 | 5.19 | 0.02 | 0.02 | 0.01 | 0.01 | 0.02 | | |
| PM10 | 0.15 | g/hp-hr | 2 | 317.61 | 238.21 | 158.81 | 0.70 | 0.53 | 0.35 | 0.35 | 0.70 | | |
| PM2.5 | 0.15 | g/hp-hr | 2 | 317.61 | 238.21 | 158.81 | 0.70 | 0.53 | 0.35 | 0.35 | 0.70 | | |
| CO2 | 1.15 | lb/hp-hr | 2 | 1,104,502.78 | 828,377.08 | 552,251.39 | 2,435.01 | 1,826.26 | 1,217.51 | 1,217.51 | 2,435.01 | 6.63 | 13.25 |
| CH4 | 0.073134 | g/hp-hr | 2 | 154.85 | 116.14 | 77.43 | 0.34 | 0.26 | 0.17 | 0.17 | 0.34 | 0.00 | 0.00 |
| | | | | | | | | | | | | 6.65 | 13.31 MT CO2E |

CH4 GWP = 28

1. Kohler KD1500 Specifications
2. CalEEMod 2016.3.2

**Fulton 6,000 MBH Boilers**

Three (3) 6,000 MBH Boilers
6,000 MBH
6,000,000 BTU/hour
6 MMBTU/hour
50% of Total Capacity = 1 boiler operating at 100% capacity continuously and 2 boilers operating at 100% capacity for approximately 25% of the time

| Pollutant | Emission Factor | Units | Emission Factor Source | lbs/day per boiler (100% capacity) | lbs/day all 3 boilers (100% capacity) | | MT/Year per boiler (100% capacity) | MT/Year all 3 boilers (100% capacity) | MT/Year per boiler (50% capacity) | MT/Year all 3 boilers (50% capacity) |
|---|---|---|---|---|---|---|---|---|---|---|
| ROG | 0.0324 | lb/hour | 1, 2 | 0.78 | 2.33 | | | | | |
| NOx | 0.066 | lb/hour | 2 | 1.58 | 4.75 | | | | | |
| CO | 0.2584 | lb/hour | 1 | 6.20 | 18.60 | | | | | |
| SO2 | 0.0035 | lb/hour | 1, 2 | 0.08 | 0.25 | | | | | |
| PM10 | 0.0447 | lb/hour | 1, 2 | 1.07 | 3.22 | | | | | |
| PM2.5 | 0.0447 | lb/hour | 1, 2 | 1.07 | 3.22 | | | | | |
| CO2 | 705.8824 | lb/hour | 2 | 16,941.18 | 50,823.53 | | 2,804.8053 | 8,414.4159 | 1,402.4026 | 4,207.2079 |
| CH4 | 0.0135 | lb/hour | 2 | 0.32 | 0.97 | | 0.0536 | 0.1609 | 0.0268 | 0.0805 |
| | | | | | | MT CO2E | 2,806.3073 | 8,418.9218 | 1,403.1536 | 4,209.4609 |

CH4 GWP = 28

1. Fulton Boiler Specifications
2. CalEEMod 2016.3.2

**CalEEMod Emission Factors**

| | lb/10^6 scf | lb/MMBtu | lb/hour |
|---|---|---|---|
| ROG | 5.5 | 0.0054 | 0.0324 |
| NOx | 11.22 | 0.0110 | 0.0660 |
| CO | 98 | 0.0961 | 0.5765 |
| SO2 | 0.6 | 0.0006 | 0.0035 |
| PM10 | 7.6 | 0.0075 | 0.0447 |
| PM2.5 | 7.6 | 0.0075 | 0.0447 |
| CO2 | 120,000 | 117.6471 | 705.8824 |
| CH4 | 2.3 | 0.0023 | 0.0135 |

**Boiler Specifications Emission Factors**

**EMISSIONS:** STANDARD NATURAL GAS AT 1,020 BTU/SCF (9,082 KCAL/M³)

| | Endura+ Model | EDR+4000 | | EDR+5000 | | EDR+6000 | |
|---|---|---|---|---|---|---|---|
| NOx | ppm | < 20 | < 7 | < 20 | < 7 | < 20 | < 7 |
| $CO_2$ | % | 8.6 | 7.5 | 8.6 | 7.5 | 8.6 | 7.5 |
| CO | ppm | < 45 | < 45 | < 50 | < 45 | < 60 | < 50 |
| | lbs/hr | 0.1314 | 0.1314 | 0.1788 | 0.1606 | 0.2584 | 0.2146 |
| | g/hr | 59.60 | 59.60 | 81.10 | 72.85 | 117.2 | 97.34 |
| SOx | lbs/hr | 0.0024 | | 0.0029 | | 0.0035 | |
| | g/hr | 1.089 | | 1.315 | | 1.588 | |
| Total Particulates (PM) | lbs/hr | 0.0298 | | 0.0373 | | 0.0447 | |
| | g/hr | 13.52 | | 16.92 | | 20.28 | |
| Total Organics (TOC) | lbs/hr | 0.0431 | | 0.0539 | | 0.0647 | |
| | g/hr | 19.55 | | 24.45 | | 29.35 | |
| Lead | lbs/hr | $2.0 \times 10^{-6}$ | | $2.5 \times 10^{-6}$ | | $2.9 \times 10^{-6}$ | |
| | g/hr | $9.1 \times 10^{-4}$ | | 0.0011 | | 0.0013 | |
| Volatile Organic Compounds (VOC) | lbs/hr | 0.0216 | | 0.0270 | | 0.0324 | |
| | g/hr | 9.798 | | 12.25 | | 14.70 | |

**NOTES:**
- <7 ppm NOx operation is available for 460/3/60 electrical configurations only.
- NOx and CO are stated at a 3% $O_2$ correction.
- Emissions data is typical for standard natural gas operation.
- Emissions will vary based on site specific factors and operating parameters.
- Site specific conditions and emissions requirements will determine the appropriate $CO_2$ settings for each application.
- VOC, SOx, PM, TOC and Lead are achieved through calculation using the AP 42 method as published by the US EPA, and are stated at rated input.
- AP 42, Fifth Edition, Vol 1, Ch 1, Table 1.4-2 determines the emissions components that cannot be measured with a combustion analyzer.
- Jacket losses: 0.2% of output at maximum capacity, IAW ASHRAE Standard 103-2007.

**GHG Intensity Factors (lbs/MWh)**
**Southern California Edison**

| | Default CalEEMod | 2019 (35% RPS) | Intensity Factor without RPS (0% RPS) | 2024 (44% RPS) | 2025 (46.67% RPS) | 2026 (49.33% RPS) | 2027 (52% RPS) |
|---|---|---|---|---|---|---|---|
| CO2 | 702.436 | 532.058 | 858.158 | 480.569 | 457.656 | 434.829 | 411.916 |
| CH4 | 0.029 | 0.022 | 0.035 | 0.020 | 0.019 | 0.018 | 0.017 |
| N2O | 0.006 | 0.005 | 0.008 | 0.004 | 0.004 | 0.004 | 0.004 |
| CO2E | 705.000 | 534.000 | 861.290 | 482.323 | 459.326 | 436.416 | 413.419 |

In 2019, SCE had 35% RPS and a CO2E emission rate of 534 lbs/MWh.
https://www.edison.com/content/dam/eix/documents/sustainability/eix-2019-sustainability-report.pdf

| Year | RPS Requirement |
|---|---|
| 2024 | 44.00 |
| 2025 | 46.67 |
| 2026 | 49.33 |
| 2027 | 52.00 |

# 9790 Inland Valley Medical Center

**South Coast AQMD Air District, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Hospital | 100.00 | Bed | 1.64 | 248,225.00 | 0 |
| Parking Lot | 3.60 | Acre | 3.60 | 156,816.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 31 |
| **Climate Zone** | 10 | | | **Operational Year** | 2026 |
| **Utility Company** | Southern California Edison | | | | |
| **CO2 Intensity (lb/MWhr)** | 434.83 | **CH4 Intensity (lb/MWhr)** | 0.018 | **N2O Intensity (lb/MWhr)** | 0.004 |

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

Project Characteristics - Intensity factors adjusted to relfect So Cal Edison RPS procurement

Land Use - New tower 232,000 sf, net increase 82 beds
CUP 16,225 sf

Construction Phase - Per project schedule

Off-road Equipment - Building A Canopy - Default equipment

Off-road Equipment - Building A Construction Post Occupancy - No crane or tractors for post-occupancy finishes

Off-road Equipment - Building A Remodel - No crane or tractors for interior remodel

Off-road Equipment - Building A Renovations - No crane or tractors for interior remodel

Off-road Equipment - Building C Demo - Default equipment

Off-road Equipment - Building I Renovation - No cranes or tractors for interior remodel
Off-road Equipment - Buildings B-H Demo - Default equipment

Off-road Equipment - CUP Construction - Default equipment

Off-road Equipment - CUP Site Clearing - Equipment reduced to 1 each due to small area

Off-road Equipment - East Parking Lot - Default equipment

Off-road Equipment - New Tower Achitectural Coatings - Default equipment

Off-road Equipment - New Tower Construction - Default equipment

Off-road Equipment - New Tower Grading - Default equipment

Off-road Equipment - New Tower Site Prep - Default equipment

Off-road Equipment - South Parking Lot - Default equipment

Trips and VMT - Default hauling trips

Demolition - Building C (12,800 sf) + Remodel (40,000 sf)
Buildings B-H (95,000 sf)

Grading - Export 1,200 cy

Vehicle Trips - 22.32 trips/weekday
Default trip length

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Energy Use -

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Fleet Mix -

Architectural Coating -

9790 Inland Valley Medical Center - South Coast AQMD Air District, Annual

Area Coating -

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblGrading | MaterialExported | 0.00 | 1,200.00 |
| tblLandUse | LandUseSquareFeet | 71,575.76 | 248,225.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 0.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 4.00 | 1.00 |
| tblOffRoadEquipment | UsageHours | 7.00 | 0.00 |
| tblOffRoadEquipment | UsageHours | 7.00 | 0.00 |
| tblProjectCharacteristics | CH4IntensityFactor | 0.029 | 0.018 |
| tblProjectCharacteristics | CO2IntensityFactor | 702.44 | 434.83 |
| tblProjectCharacteristics | N2OIntensityFactor | 0.006 | 0.004 |
| tblTripsAndVMT | HaulingTripNumber | 150.00 | 3,188.00 |
| tblTripsAndVMT | VendorTripNumber | 66.00 | 73.00 |
| tblTripsAndVMT | VendorTripNumber | 66.00 | 73.00 |
| tblTripsAndVMT | VendorTripNumber | 66.00 | 73.00 |
| tblTripsAndVMT | VendorTripNumber | 66.00 | 73.00 |
| tblTripsAndVMT | VendorTripNumber | 66.00 | 73.00 |
| tblTripsAndVMT | VendorTripNumber | 66.00 | 73.00 |

| | | | |
|---|---|---|---|
| tblTripsAndVMT | VendorTripNumber | 66.00 | 73.00 |
| tblTripsAndVMT | WorkerTripNumber | 145.00 | 159.00 |
| tblTripsAndVMT | WorkerTripNumber | 145.00 | 159.00 |
| tblTripsAndVMT | WorkerTripNumber | 29.00 | 32.00 |
| tblTripsAndVMT | WorkerTripNumber | 145.00 | 159.00 |
| tblTripsAndVMT | WorkerTripNumber | 145.00 | 159.00 |
| tblTripsAndVMT | WorkerTripNumber | 145.00 | 159.00 |
| tblTripsAndVMT | WorkerTripNumber | 145.00 | 159.00 |
| tblTripsAndVMT | WorkerTripNumber | 145.00 | 159.00 |
| tblVehicleTrips | ST_TR | 8.14 | 14.04 |
| tblVehicleTrips | SU_TR | 7.19 | 12.40 |
| tblVehicleTrips | WD_TR | 12.94 | 22.32 |

## 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 | | | | | |
| 2021 | 0.1968 | 1.7403 | 1.5450 | 4.1100e-003 | 0.1601 | 0.0685 | 0.2287 | 0.0418 | 0.0647 | 0.1064 | 0.0000 | 371.5623 | 371.5623 | 0.0437 | 0.0000 | 372.6537 |
| 2022 | 0.7460 | 7.0421 | 6.5395 | 0.0182 | 0.9324 | 0.2513 | 1.1837 | 0.3308 | 0.2361 | 0.5669 | 0.0000 | 1,655.0587 | 1,655.0587 | 0.2101 | 0.0000 | 1,660.3099 |
| 2023 | 1.8814 | 5.9260 | 6.8234 | 0.0188 | 0.7279 | 0.2103 | 0.9382 | 0.1967 | 0.1985 | 0.3952 | 0.0000 | 1,697.0857 | 1,697.0857 | 0.1927 | 0.0000 | 1,701.9041 |
| 2024 | 0.2098 | 1.8080 | 2.2341 | 5.5300e-003 | 0.1816 | 0.0653 | 0.2468 | 0.0491 | 0.0611 | 0.1102 | 0.0000 | 498.3158 | 498.3158 | 0.0742 | 0.0000 | 500.1710 |
| 2025 | 0.2234 | 1.9628 | 2.2015 | 5.1800e-003 | 0.1549 | 0.0772 | 0.2321 | 0.0363 | 0.0720 | 0.1082 | 0.0000 | 462.6847 | 462.6847 | 0.0889 | 0.0000 | 464.9074 |
| 2026 | 0.0421 | 0.3401 | 0.5901 | 9.5000e-004 | 6.5000e-003 | 0.0166 | 0.0231 | 1.7300e-003 | 0.0153 | 0.0170 | 0.0000 | 83.7855 | 83.7855 | 0.0257 | 0.0000 | 84.4272 |
| **Maximum** | **1.8814** | **7.0421** | **6.8234** | **0.0188** | **0.9324** | **0.2513** | **1.1837** | **0.3308** | **0.2361** | **0.5669** | **0.0000** | **1,697.0857** | **1,697.0857** | **0.2101** | **0.0000** | **1,701.9041** |

## 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 | | | | | |
| 2021 | 0.1968 | 1.7403 | 1.5450 | 4.1100e-003 | 0.1533 | 0.0685 | 0.2218 | 0.0408 | 0.0647 | 0.1054 | 0.0000 | 371.5621 | 371.5621 | 0.0437 | 0.0000 | 372.6535 |
| 2022 | 0.7460 | 7.0421 | 6.5395 | 0.0182 | 0.7599 | 0.2513 | 1.0112 | 0.2409 | 0.2361 | 0.4770 | 0.0000 | 1,655.0579 | 1,655.0579 | 0.2101 | 0.0000 | 1,660.3091 |
| 2023 | 1.8814 | 5.9260 | 6.8234 | 0.0188 | 0.7279 | 0.2103 | 0.9382 | 0.1967 | 0.1985 | 0.3952 | 0.0000 | 1,697.0849 | 1,697.0849 | 0.1927 | 0.0000 | 1,701.9033 |
| 2024 | 0.2098 | 1.8080 | 2.2341 | 5.5300e-003 | 0.1816 | 0.0653 | 0.2468 | 0.0491 | 0.0611 | 0.1102 | 0.0000 | 498.3155 | 498.3155 | 0.0742 | 0.0000 | 500.1707 |
| 2025 | 0.2234 | 1.9628 | 2.2015 | 5.1800e-003 | 0.1292 | 0.0772 | 0.2064 | 0.0324 | 0.0720 | 0.1043 | 0.0000 | 462.6844 | 462.6844 | 0.0889 | 0.0000 | 464.9070 |
| 2026 | 0.0421 | 0.3401 | 0.5901 | 9.5000e-004 | 6.5000e-003 | 0.0166 | 0.0231 | 1.7300e-003 | 0.0153 | 0.0170 | 0.0000 | 83.7854 | 83.7854 | 0.0257 | 0.0000 | 84.4271 |
| **Maximum** | **1.8814** | **7.0421** | **6.8234** | **0.0188** | **0.7599** | **0.2513** | **1.0112** | **0.2409** | **0.2361** | **0.4770** | **0.0000** | **1,697.0849** | **1,697.0849** | **0.2101** | **0.0000** | **1,701.9033** |

| | ROG | NOx | 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** | **9.48** | **0.00** | **7.19** | **14.45** | **0.00** | **7.27** | **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** | **7-14-2021** | **10-13-2021** | 0.4571 | 0.4571 |
| **2** | **10-14-2021** | **1-13-2022** | 0.9061 | 0.9061 |
| **3** | **1-14-2022** | **4-13-2022** | 1.3885 | 1.3885 |
| **4** | **4-14-2022** | **7-13-2022** | 2.3527 | 2.3527 |
| **5** | **7-14-2022** | **10-13-2022** | 2.1899 | 2.1899 |

| | | | | |
|---|---|---|---|---|
| **6** | **10-14-2022** | **1-13-2023** | 1.8983 | 1.8983 |
| **7** | **1-14-2023** | **4-13-2023** | 2.0141 | 2.0141 |
| **8** | **4-14-2023** | **7-13-2023** | 3.0478 | 3.0478 |
| **9** | **7-14-2023** | **10-13-2023** | 1.8981 | 1.8981 |
| **10** | **10-14-2023** | **1-13-2024** | 0.7213 | 0.7213 |
| **11** | **1-14-2024** | **4-13-2024** | 0.6818 | 0.6818 |
| **12** | **4-14-2024** | **7-13-2024** | 0.6800 | 0.6800 |
| **13** | **7-14-2024** | **10-13-2024** | 0.2400 | 0.2400 |
| **14** | **10-14-2024** | **1-13-2025** | 0.3473 | 0.3473 |
| **15** | **1-14-2025** | **4-13-2025** | 0.0589 | 0.0589 |
| **16** | **4-14-2025** | **7-13-2025** | 0.5076 | 0.5076 |
| **17** | **7-14-2025** | **10-13-2025** | 1.0300 | 1.0300 |
| **18** | **10-14-2025** | **1-13-2026** | 0.5722 | 0.5722 |
| **19** | **1-14-2026** | **4-13-2026** | 0.3111 | 0.3111 |
| **20** | **4-14-2026** | **7-13-2026** | 0.0276 | 0.0276 |
| | | **Highest** | 3.0478 | 3.0478 |

## 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 | 1.0247 | 1.0000e-005 | 1.3200e-003 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.5700e-003 | 2.5700e-003 | 1.0000e-005 | 0.0000 | 2.7400e-003 |
| Energy | 0.1011 | 0.9189 | 0.7719 | 5.5100e-003 | | 0.0698 | 0.0698 | | 0.0698 | 0.0698 | 0.0000 | 1,913.4915 | 1,913.4915 | 0.0570 | 0.0267 | 1,922.8842 |
| Mobile | 0.4832 | 2.5312 | 6.8527 | 0.0306 | 2.9043 | 0.0216 | 2.9259 | 0.7781 | 0.0201 | 0.7981 | 0.0000 | 2,833.1376 | 2,833.1376 | 0.1181 | 0.0000 | 2,836.0888 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 59.2734 | 0.0000 | 59.2734 | 3.5030 | 0.0000 | 146.8472 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 2.8494 | 26.8147 | 29.6641 | 0.2938 | 7.1600e-003 | 39.1410 |
| **Total** | **1.6090** | **3.4502** | **7.6259** | **0.0361** | **2.9043** | **0.0914** | **2.9957** | **0.7781** | **0.0899** | **0.8680** | **62.1227** | **4,773.4463** | **4,835.5691** | **3.9718** | **0.0339** | **4,944.9640** |

## 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 | 1.0247 | 1.0000e-005 | 1.3200e-003 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.5700e-003 | 2.5700e-003 | 1.0000e-005 | 0.0000 | 2.7400e-003 |
| Energy | 0.0911 | 0.8285 | 0.6959 | 4.9700e-003 | | 0.0630 | 0.0630 | | 0.0630 | 0.0630 | 0.0000 | 1,746.4210 | 1,746.4210 | 0.0523 | 0.0243 | 1,754.9696 |
| Mobile | 0.4832 | 2.5312 | 6.8527 | 0.0306 | 2.9043 | 0.0216 | 2.9259 | 0.7781 | 0.0201 | 0.7981 | 0.0000 | 2,833.1376 | 2,833.1376 | 0.1181 | 0.0000 | 2,836.0888 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 59.2734 | 0.0000 | 59.2734 | 3.5030 | 0.0000 | 146.8472 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 2.2795 | 22.2015 | 24.4810 | 0.2351 | 5.7300e-003 | 32.0654 |
| **Total** | **1.5990** | **3.3597** | **7.5499** | **0.0355** | **2.9043** | **0.0846** | **2.9888** | **0.7781** | **0.0830** | **0.8611** | **61.5529** | **4,601.7627** | **4,663.3156** | **3.9083** | **0.0300** | **4,769.9737** |

| | ROG | NOx | 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** | **0.62** | **2.62** | **1.00** | **1.50** | **0.00** | **7.52** | **0.23** | **0.00** | **7.65** | **0.79** | **0.92** | **3.60** | **3.56** | **1.60** | **11.42** | **3.54** |

## 3.0 Construction Detail

**Construction Phase**

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| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Building A Remodel | Building Construction | 3/30/2021 | 9/24/2021 | 5 | 129 | |
| 2 | Building C Demolition | Demolition | 11/1/2021 | 3/10/2022 | 5 | 94 | |
| 3 | CUP Site Clearing | Site Preparation | 2/23/2022 | 3/24/2022 | 5 | 22 | |
| 4 | New Tower Site Prep | Site Preparation | 3/11/2022 | 3/31/2022 | 5 | 15 | |
| 5 | CUP Construction | Building Construction | 3/25/2022 | 5/8/2023 | 5 | 292 | |
| 6 | New Tower Grading | Grading | 4/1/2022 | 5/12/2022 | 5 | 30 | |
| 7 | Building I Renovation | Building Construction | 4/13/2022 | 11/28/2022 | 5 | 164 | |
| 8 | New Tower Construction | Building Construction | 5/19/2022 | 8/9/2024 | 5 | 582 | |
| 9 | Building A Canopy | Building Construction | 2/27/2023 | 9/20/2023 | 5 | 148 | |
| 10 | Building A Renovations | Building Construction | 2/27/2023 | 9/20/2023 | 5 | 148 | |
| 11 | New Tower Architectural Coatings | Architectural Coating | 4/14/2023 | 8/9/2023 | 5 | 84 | |
| 12 | South Parking Lot | Paving | 10/4/2024 | 1/30/2025 | 5 | 85 | |
| 13 | Building A Construction Post Occupance | Building Construction | 5/29/2025 | 9/19/2025 | 5 | 82 | |
| 14 | Buildings B-H Demolition | Demolition | 6/6/2025 | 12/12/2025 | 5 | 136 | |
| 15 | East Parking Lot | Paving | 12/15/2025 | 4/21/2026 | 5 | 92 | |

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

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

**Acres of Paving: 3.6**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 373,262; Non-Residential Outdoor: 124,421; Striped Parking Area: 9,409 (Architectural Coating – sqft)**

**OffRoad Equipment**

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Building A Remodel | Cranes | 0 | 0.00 | 231 | 0.29 |

| | | | | | |
|---|---|---|---|---|---|
| Building A Remodel | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Building A Remodel | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Building A Remodel | Tractors/Loaders/Backhoes | 0 | 0.00 | 97 | 0.37 |
| Building A Remodel | Welders | 1 | 8.00 | 46 | 0.45 |
| Building C Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Building C Demolition | Excavators | 3 | 8.00 | 158 | 0.38 |
| Building C Demolition | Rubber Tired Dozers | 2 | 8.00 | 247 | 0.40 |
| CUP Site Clearing | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| CUP Site Clearing | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| New Tower Site Prep | Rubber Tired Dozers | 3 | 8.00 | 247 | 0.40 |
| New Tower Site Prep | Tractors/Loaders/Backhoes | 4 | 8.00 | 97 | 0.37 |
| CUP Construction | Cranes | 1 | 7.00 | 231 | 0.29 |
| CUP Construction | Forklifts | 3 | 8.00 | 89 | 0.20 |
| CUP Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| CUP Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| CUP Construction | Welders | 1 | 8.00 | 46 | 0.45 |
| New Tower Grading | Excavators | 1 | 8.00 | 158 | 0.38 |
| New Tower Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| New Tower Grading | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| New Tower Grading | Tractors/Loaders/Backhoes | 3 | 8.00 | 97 | 0.37 |
| Building I Renovation | Cranes | 0 | 7.00 | 231 | 0.29 |
| Building I Renovation | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Building I Renovation | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Building I Renovation | Tractors/Loaders/Backhoes | 0 | 7.00 | 97 | 0.37 |
| Building I Renovation | Welders | 1 | 8.00 | 46 | 0.45 |
| New Tower Construction | Cranes | 1 | 7.00 | 231 | 0.29 |
| New Tower Construction | Forklifts | 3 | 8.00 | 89 | 0.20 |

| | | | | | |
|---|---|---|---|---|---|
| New Tower Construction | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| New Tower Construction | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| New Tower Construction | Welders | 1 | 8.00 | 46 | 0.45 |
| Building A Canopy | Cranes | 1 | 7.00 | 231 | 0.29 |
| Building A Canopy | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Building A Canopy | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Building A Canopy | Tractors/Loaders/Backhoes | 3 | 7.00 | 97 | 0.37 |
| Building A Canopy | Welders | 1 | 8.00 | 46 | 0.45 |
| Building A Renovations | Cranes | 0 | 7.00 | 231 | 0.29 |
| Building A Renovations | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Building A Renovations | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Building A Renovations | Tractors/Loaders/Backhoes | 0 | 7.00 | 97 | 0.37 |
| Building A Renovations | Welders | 1 | 8.00 | 46 | 0.45 |
| New Tower Architectural Coatings | Air Compressors | 1 | 6.00 | 78 | 0.48 |
| South Parking Lot | Pavers | 2 | 8.00 | 130 | 0.42 |
| South Parking Lot | Paving Equipment | 2 | 8.00 | 132 | 0.36 |
| South Parking Lot | Rollers | 2 | 8.00 | 80 | 0.38 |
| Building A Construction Post Occupance | Cranes | 0 | 7.00 | 231 | 0.29 |
| Building A Construction Post Occupance | Forklifts | 3 | 8.00 | 89 | 0.20 |
| Building A Construction Post Occupance | Generator Sets | 1 | 8.00 | 84 | 0.74 |
| Building A Construction Post Occupance | Tractors/Loaders/Backhoes | 0 | 7.00 | 97 | 0.37 |
| Building A Construction Post Occupance | Welders | 1 | 8.00 | 46 | 0.45 |
| Buildings B-H Demolition | Concrete/Industrial Saws | 1 | 8.00 | 81 | 0.73 |
| Buildings B-H Demolition | Excavators | 3 | 8.00 | 158 | 0.38 |
| Buildings B-H Demolition | Rubber Tired Dozers | 2 | 8.00 | 247 | 0.40 |
| East Parking Lot | Pavers | 2 | 8.00 | 130 | 0.42 |

| | | | | | |
|---|---|---|---|---|---|
| East Parking Lot | Paving Equipment | 2 | 8.00 | 132 | 0.36 |
| East Parking Lot | Rollers | 2 | 8.00 | 80 | 0.38 |

**Trips and VMT**

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Building A Remodel | 5 | 159.00 | 73.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building C Demolition | 6 | 15.00 | 0.00 | 240.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| CUP Site Clearing | 2 | 5.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| New Tower Site Prep | 7 | 18.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| CUP Construction | 9 | 159.00 | 73.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| New Tower Grading | 6 | 15.00 | 0.00 | 3,188.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building I Renovation | 5 | 159.00 | 73.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| New Tower Construction | 9 | 159.00 | 73.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building A Canopy | 9 | 159.00 | 73.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building A Renovations | 5 | 159.00 | 73.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| New Tower Architectural Coatings | 1 | 32.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| South Parking Lot | 6 | 15.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building A Construction Post Occ | 5 | 159.00 | 73.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Buildings B-H Demolition | 6 | 15.00 | 0.00 | 432.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| East Parking Lot | 6 | 15.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

Water Exposed Area

## 3.2 Building A Remodel - 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 | 0.0676 | 0.5297 | 0.5745 | 8.8000e-004 | | 0.0318 | 0.0318 | | 0.0305 | 0.0305 | 0.0000 | 74.5815 | 74.5815 | 0.0119 | 0.0000 | 74.8776 |
| **Total** | **0.0676** | **0.5297** | **0.5745** | **8.8000e-004** | | **0.0318** | **0.0318** | | **0.0305** | **0.0305** | **0.0000** | **74.5815** | **74.5815** | **0.0119** | **0.0000** | **74.8776** |

### 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 | 0.0134 | 0.4556 | 0.1130 | 1.1900e-003 | 0.0297 | 9.2000e-004 | 0.0306 | 8.5600e-003 | 8.8000e-004 | 9.4400e-003 | 0.0000 | 114.9564 | 114.9564 | 7.2700e-003 | 0.0000 | 115.1381 |
| Worker | 0.0428 | 0.0316 | 0.3574 | 1.0800e-003 | 0.1125 | 8.4000e-004 | 0.1134 | 0.0299 | 7.8000e-004 | 0.0307 | 0.0000 | 98.0077 | 98.0077 | 2.6300e-003 | 0.0000 | 98.0734 |
| **Total** | **0.0561** | **0.4872** | **0.4703** | **2.2700e-003** | **0.1422** | **1.7600e-003** | **0.1440** | **0.0384** | **1.6600e-003** | **0.0401** | **0.0000** | **212.9641** | **212.9641** | **9.9000e-003** | **0.0000** | **213.2116** |

## 3.2 Building A Remodel - 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 | 0.0676 | 0.5297 | 0.5745 | 8.8000e-004 | | 0.0318 | 0.0318 | | 0.0305 | 0.0305 | 0.0000 | 74.5814 | 74.5814 | 0.0119 | 0.0000 | 74.8775 |
| **Total** | **0.0676** | **0.5297** | **0.5745** | **8.8000e-004** | | **0.0318** | **0.0318** | | **0.0305** | **0.0305** | **0.0000** | **74.5814** | **74.5814** | **0.0119** | **0.0000** | **74.8775** |

### 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 | 0.0134 | 0.4556 | 0.1130 | 1.1900e-003 | 0.0297 | 9.2000e-004 | 0.0306 | 8.5600e-003 | 8.8000e-004 | 9.4400e-003 | 0.0000 | 114.9564 | 114.9564 | 7.2700e-003 | 0.0000 | 115.1381 |
| Worker | 0.0428 | 0.0316 | 0.3574 | 1.0800e-003 | 0.1125 | 8.4000e-004 | 0.1134 | 0.0299 | 7.8000e-004 | 0.0307 | 0.0000 | 98.0077 | 98.0077 | 2.6300e-003 | 0.0000 | 98.0734 |
| **Total** | **0.0561** | **0.4872** | **0.4703** | **2.2700e-003** | **0.1422** | **1.7600e-003** | **0.1440** | **0.0384** | **1.6600e-003** | **0.0401** | **0.0000** | **212.9641** | **212.9641** | **9.9000e-003** | **0.0000** | **213.2116** |

## 3.3 Building C Demolition - 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 | | | | | 0.0124 | 0.0000 | 0.0124 | 1.8800e-003 | 0.0000 | 1.8800e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0712 | 0.7074 | 0.4852 | 8.7000e-004 | | 0.0349 | 0.0349 | | 0.0324 | 0.0324 | 0.0000 | 76.5018 | 76.5018 | 0.0215 | 0.0000 | 77.0401 |
| **Total** | **0.0712** | **0.7074** | **0.4852** | **8.7000e-004** | **0.0124** | **0.0349** | **0.0474** | **1.8800e-003** | **0.0324** | **0.0343** | **0.0000** | **76.5018** | **76.5018** | **0.0215** | **0.0000** | **77.0401** |

### 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 | 4.2000e-004 | 0.0150 | 3.1800e-003 | 4.0000e-005 | 1.8000e-003 | 5.0000e-005 | 1.8400e-003 | 4.7000e-004 | 4.0000e-005 | 5.1000e-004 | 0.0000 | 4.2896 | 4.2896 | 2.9000e-004 | 0.0000 | 4.2969 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.4100e-003 | 1.0400e-003 | 0.0118 | 4.0000e-005 | 3.7000e-003 | 3.0000e-005 | 3.7300e-003 | 9.8000e-004 | 3.0000e-005 | 1.0100e-003 | 0.0000 | 3.2254 | 3.2254 | 9.0000e-005 | 0.0000 | 3.2275 |
| **Total** | **1.8300e-003** | **0.0160** | **0.0149** | **8.0000e-005** | **5.5000e-003** | **8.0000e-005** | **5.5700e-003** | **1.4500e-003** | **7.0000e-005** | **1.5200e-003** | **0.0000** | **7.5149** | **7.5149** | **3.8000e-004** | **0.0000** | **7.5244** |

## 3.3 Building C Demolition - 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 | | | | | 5.6000e-003 | 0.0000 | 5.6000e-003 | 8.5000e-004 | 0.0000 | 8.5000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0712 | 0.7074 | 0.4852 | 8.7000e-004 | | 0.0349 | 0.0349 | | 0.0324 | 0.0324 | 0.0000 | 76.5017 | 76.5017 | 0.0215 | 0.0000 | 77.0400 |
| **Total** | **0.0712** | **0.7074** | **0.4852** | **8.7000e-004** | **5.6000e-003** | **0.0349** | **0.0405** | **8.5000e-004** | **0.0324** | **0.0333** | **0.0000** | **76.5017** | **76.5017** | **0.0215** | **0.0000** | **77.0400** |

### 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 | 4.2000e-004 | 0.0150 | 3.1800e-003 | 4.0000e-005 | 1.8000e-003 | 5.0000e-005 | 1.8400e-003 | 4.7000e-004 | 4.0000e-005 | 5.1000e-004 | 0.0000 | 4.2896 | 4.2896 | 2.9000e-004 | 0.0000 | 4.2969 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.4100e-003 | 1.0400e-003 | 0.0118 | 4.0000e-005 | 3.7000e-003 | 3.0000e-005 | 3.7300e-003 | 9.8000e-004 | 3.0000e-005 | 1.0100e-003 | 0.0000 | 3.2254 | 3.2254 | 9.0000e-005 | 0.0000 | 3.2275 |
| **Total** | **1.8300e-003** | **0.0160** | **0.0149** | **8.0000e-005** | **5.5000e-003** | **8.0000e-005** | **5.5700e-003** | **1.4500e-003** | **7.0000e-005** | **1.5200e-003** | **0.0000** | **7.5149** | **7.5149** | **3.8000e-004** | **0.0000** | **7.5244** |

## 3.3 Building C Demolition - 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 | | | | | 0.0136 | 0.0000 | 0.0136 | 2.0500e-003 | 0.0000 | 2.0500e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0647 | 0.6301 | 0.5046 | 9.5000e-004 | | 0.0305 | 0.0305 | | 0.0283 | 0.0283 | 0.0000 | 83.2761 | 83.2761 | 0.0234 | 0.0000 | 83.8608 |
| **Total** | **0.0647** | **0.6301** | **0.5046** | **9.5000e-004** | **0.0136** | **0.0305** | **0.0440** | **2.0500e-003** | **0.0283** | **0.0304** | **0.0000** | **83.2761** | **83.2761** | **0.0234** | **0.0000** | **83.8608** |

### 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 | 4.4000e-004 | 0.0151 | 3.4100e-003 | 5.0000e-005 | 1.8200e-003 | 4.0000e-005 | 1.8600e-003 | 4.8000e-004 | 4.0000e-005 | 5.2000e-004 | 0.0000 | 4.6154 | 4.6154 | 3.1000e-004 | 0.0000 | 4.6233 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.4400e-003 | 1.0200e-003 | 0.0118 | 4.0000e-005 | 4.0300e-003 | 3.0000e-005 | 4.0600e-003 | 1.0700e-003 | 3.0000e-005 | 1.1000e-003 | 0.0000 | 3.3861 | 3.3861 | 9.0000e-005 | 0.0000 | 3.3883 |
| **Total** | **1.8800e-003** | **0.0161** | **0.0152** | **9.0000e-005** | **5.8500e-003** | **7.0000e-005** | **5.9200e-003** | **1.5500e-003** | **7.0000e-005** | **1.6200e-003** | **0.0000** | **8.0016** | **8.0016** | **4.0000e-004** | **0.0000** | **8.0116** |

## 3.3 Building C Demolition - 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 | | | | | 6.1000e-003 | 0.0000 | 6.1000e-003 | 9.2000e-004 | 0.0000 | 9.2000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0647 | 0.6301 | 0.5046 | 9.5000e-004 | | 0.0304 | 0.0304 | | 0.0283 | 0.0283 | 0.0000 | 83.2760 | 83.2760 | 0.0234 | 0.0000 | 83.8607 |
| **Total** | **0.0647** | **0.6301** | **0.5046** | **9.5000e-004** | **6.1000e-003** | **0.0304** | **0.0365** | **9.2000e-004** | **0.0283** | **0.0292** | **0.0000** | **83.2760** | **83.2760** | **0.0234** | **0.0000** | **83.8607** |

### 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 | 4.4000e-004 | 0.0151 | 3.4100e-003 | 5.0000e-005 | 1.8200e-003 | 4.0000e-005 | 1.8600e-003 | 4.8000e-004 | 4.0000e-005 | 5.2000e-004 | 0.0000 | 4.6154 | 4.6154 | 3.1000e-004 | 0.0000 | 4.6233 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.4400e-003 | 1.0200e-003 | 0.0118 | 4.0000e-005 | 4.0300e-003 | 3.0000e-005 | 4.0600e-003 | 1.0700e-003 | 3.0000e-005 | 1.1000e-003 | 0.0000 | 3.3861 | 3.3861 | 9.0000e-005 | 0.0000 | 3.3883 |
| **Total** | **1.8800e-003** | **0.0161** | **0.0152** | **9.0000e-005** | **5.8500e-003** | **7.0000e-005** | **5.9200e-003** | **1.5500e-003** | **7.0000e-005** | **1.6200e-003** | **0.0000** | **8.0016** | **8.0016** | **4.0000e-004** | **0.0000** | **8.0116** |

## 3.4 CUP Site Clearing - 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 | | | | | 0.0662 | 0.0000 | 0.0662 | 0.0364 | 0.0000 | 0.0364 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0110 | 0.1152 | 0.0640 | 1.3000e-004 | | 5.5800e-003 | 5.5800e-003 | | 5.1400e-003 | 5.1400e-003 | 0.0000 | 11.2591 | 11.2591 | 3.6400e-003 | 0.0000 | 11.3501 |
| **Total** | **0.0110** | **0.1152** | **0.0640** | **1.3000e-004** | **0.0662** | **5.5800e-003** | **0.0718** | **0.0364** | **5.1400e-003** | **0.0416** | **0.0000** | **11.2591** | **11.2591** | **3.6400e-003** | **0.0000** | **11.3501** |

### 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 | 2.2000e-004 | 1.5000e-004 | 1.7700e-003 | 1.0000e-005 | 6.0000e-004 | 0.0000 | 6.1000e-004 | 1.6000e-004 | 0.0000 | 1.6000e-004 | 0.0000 | 0.5068 | 0.5068 | 1.0000e-005 | 0.0000 | 0.5071 |
| **Total** | **2.2000e-004** | **1.5000e-004** | **1.7700e-003** | **1.0000e-005** | **6.0000e-004** | **0.0000** | **6.1000e-004** | **1.6000e-004** | **0.0000** | **1.6000e-004** | **0.0000** | **0.5068** | **0.5068** | **1.0000e-005** | **0.0000** | **0.5071** |

## 3.4 CUP Site Clearing - 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 | | | | | 0.0298 | 0.0000 | 0.0298 | 0.0164 | 0.0000 | 0.0164 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0110 | 0.1152 | 0.0640 | 1.3000e-004 | | 5.5800e-003 | 5.5800e-003 | | 5.1400e-003 | 5.1400e-003 | 0.0000 | 11.2591 | 11.2591 | 3.6400e-003 | 0.0000 | 11.3501 |
| **Total** | **0.0110** | **0.1152** | **0.0640** | **1.3000e-004** | **0.0298** | **5.5800e-003** | **0.0354** | **0.0164** | **5.1400e-003** | **0.0215** | **0.0000** | **11.2591** | **11.2591** | **3.6400e-003** | **0.0000** | **11.3501** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 2.2000e-004 | 1.5000e-004 | 1.7700e-003 | 1.0000e-005 | 6.0000e-004 | 0.0000 | 6.1000e-004 | 1.6000e-004 | 0.0000 | 1.6000e-004 | 0.0000 | 0.5068 | 0.5068 | 1.0000e-005 | 0.0000 | 0.5071 |
| **Total** | **2.2000e-004** | **1.5000e-004** | **1.7700e-003** | **1.0000e-005** | **6.0000e-004** | **0.0000** | **6.1000e-004** | **1.6000e-004** | **0.0000** | **1.6000e-004** | **0.0000** | **0.5068** | **0.5068** | **1.0000e-005** | **0.0000** | **0.5071** |

## 3.5 New Tower Site Prep - 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 | | | | | 0.1355 | 0.0000 | 0.1355 | 0.0745 | 0.0000 | 0.0745 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0238 | 0.2481 | 0.1477 | 2.9000e-004 | | 0.0121 | 0.0121 | | 0.0111 | 0.0111 | 0.0000 | 25.0795 | 25.0795 | 8.1100e-003 | 0.0000 | 25.2823 |
| **Total** | **0.0238** | **0.2481** | **0.1477** | **2.9000e-004** | **0.1355** | **0.0121** | **0.1476** | **0.0745** | **0.0111** | **0.0856** | **0.0000** | **25.0795** | **25.0795** | **8.1100e-003** | **0.0000** | **25.2823** |

### 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 | 5.3000e-004 | 3.8000e-004 | 4.3400e-003 | 1.0000e-005 | 1.4800e-003 | 1.0000e-005 | 1.4900e-003 | 3.9000e-004 | 1.0000e-005 | 4.0000e-004 | 0.0000 | 1.2439 | 1.2439 | 3.0000e-005 | 0.0000 | 1.2447 |
| **Total** | **5.3000e-004** | **3.8000e-004** | **4.3400e-003** | **1.0000e-005** | **1.4800e-003** | **1.0000e-005** | **1.4900e-003** | **3.9000e-004** | **1.0000e-005** | **4.0000e-004** | **0.0000** | **1.2439** | **1.2439** | **3.0000e-005** | **0.0000** | **1.2447** |

## 3.5 New Tower Site Prep - 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 | | | | | 0.0610 | 0.0000 | 0.0610 | 0.0335 | 0.0000 | 0.0335 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0238 | 0.2481 | 0.1477 | 2.9000e-004 | | 0.0121 | 0.0121 | | 0.0111 | 0.0111 | 0.0000 | 25.0795 | 25.0795 | 8.1100e-003 | 0.0000 | 25.2823 |
| **Total** | **0.0238** | **0.2481** | **0.1477** | **2.9000e-004** | **0.0610** | **0.0121** | **0.0731** | **0.0335** | **0.0111** | **0.0447** | **0.0000** | **25.0795** | **25.0795** | **8.1100e-003** | **0.0000** | **25.2823** |

### 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 | 5.3000e-004 | 3.8000e-004 | 4.3400e-003 | 1.0000e-005 | 1.4800e-003 | 1.0000e-005 | 1.4900e-003 | 3.9000e-004 | 1.0000e-005 | 4.0000e-004 | 0.0000 | 1.2439 | 1.2439 | 3.0000e-005 | 0.0000 | 1.2447 |
| **Total** | **5.3000e-004** | **3.8000e-004** | **4.3400e-003** | **1.0000e-005** | **1.4800e-003** | **1.0000e-005** | **1.4900e-003** | **3.9000e-004** | **1.0000e-005** | **4.0000e-004** | **0.0000** | **1.2439** | **1.2439** | **3.0000e-005** | **0.0000** | **1.2447** |

## 3.6 CUP Construction - 2022

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.1715 | 1.5694 | 1.6445 | 2.7100e-003 | | 0.0813 | 0.0813 | | 0.0765 | 0.0765 | 0.0000 | 232.8839 | 232.8839 | 0.0558 | 0.0000 | 234.2787 |
| **Total** | **0.1715** | **1.5694** | **1.6445** | **2.7100e-003** | | **0.0813** | **0.0813** | | **0.0765** | **0.0765** | **0.0000** | **232.8839** | **232.8839** | **0.0558** | **0.0000** | **234.2787** |

### 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 | 0.0196 | 0.6731 | 0.1663 | 1.8300e-003 | 0.0462 | 1.2400e-003 | 0.0475 | 0.0133 | 1.1800e-003 | 0.0145 | 0.0000 | 177.5410 | 177.5410 | 0.0109 | 0.0000 | 177.8136 |
| Worker | 0.0626 | 0.0445 | 0.5142 | 1.6300e-003 | 0.1753 | 1.2800e-003 | 0.1766 | 0.0466 | 1.1800e-003 | 0.0477 | 0.0000 | 147.2346 | 147.2346 | 3.7000e-003 | 0.0000 | 147.3271 |
| **Total** | **0.0821** | **0.7176** | **0.6805** | **3.4600e-003** | **0.2216** | **2.5200e-003** | **0.2241** | **0.0599** | **2.3600e-003** | **0.0623** | **0.0000** | **324.7757** | **324.7757** | **0.0146** | **0.0000** | **325.1407** |

## 3.6 CUP Construction - 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 | 0.1715 | 1.5694 | 1.6445 | 2.7100e-003 | | 0.0813 | 0.0813 | | 0.0765 | 0.0765 | 0.0000 | 232.8836 | 232.8836 | 0.0558 | 0.0000 | 234.2784 |
| **Total** | **0.1715** | **1.5694** | **1.6445** | **2.7100e-003** | | **0.0813** | **0.0813** | | **0.0765** | **0.0765** | **0.0000** | **232.8836** | **232.8836** | **0.0558** | **0.0000** | **234.2784** |

### 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 | 0.0196 | 0.6731 | 0.1663 | 1.8300e-003 | 0.0462 | 1.2400e-003 | 0.0475 | 0.0133 | 1.1800e-003 | 0.0145 | 0.0000 | 177.5410 | 177.5410 | 0.0109 | 0.0000 | 177.8136 |
| Worker | 0.0626 | 0.0445 | 0.5142 | 1.6300e-003 | 0.1753 | 1.2800e-003 | 0.1766 | 0.0466 | 1.1800e-003 | 0.0477 | 0.0000 | 147.2346 | 147.2346 | 3.7000e-003 | 0.0000 | 147.3271 |
| **Total** | **0.0821** | **0.7176** | **0.6805** | **3.4600e-003** | **0.2216** | **2.5200e-003** | **0.2241** | **0.0599** | **2.3600e-003** | **0.0623** | **0.0000** | **324.7757** | **324.7757** | **0.0146** | **0.0000** | **325.1407** |

## 3.6 CUP 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 | 0.0716 | 0.6545 | 0.7391 | 1.2300e-003 | | 0.0318 | 0.0318 | | 0.0300 | 0.0300 | 0.0000 | 105.4712 | 105.4712 | 0.0251 | 0.0000 | 106.0984 |
| **Total** | **0.0716** | **0.6545** | **0.7391** | **1.2300e-003** | | **0.0318** | **0.0318** | | **0.0300** | **0.0300** | **0.0000** | **105.4712** | **105.4712** | **0.0251** | **0.0000** | **106.0984** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 6.6100e-003 | 0.2293 | 0.0673 | 8.0000e-004 | 0.0209 | 2.6000e-004 | 0.0212 | 6.0400e-003 | 2.5000e-004 | 6.2900e-003 | 0.0000 | 77.9564 | 77.9564 | 4.2900e-003 | 0.0000 | 78.0637 |
| Worker | 0.0267 | 0.0182 | 0.2146 | 7.1000e-004 | 0.0794 | 5.6000e-004 | 0.0799 | 0.0211 | 5.2000e-004 | 0.0216 | 0.0000 | 64.1725 | 64.1725 | 1.5100e-003 | 0.0000 | 64.2102 |
| **Total** | **0.0333** | **0.2475** | **0.2820** | **1.5100e-003** | **0.1003** | **8.2000e-004** | **0.1011** | **0.0271** | **7.7000e-004** | **0.0279** | **0.0000** | **142.1289** | **142.1289** | **5.8000e-003** | **0.0000** | **142.2739** |

## 3.6 CUP Construction - 2023

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0716 | 0.6545 | 0.7391 | 1.2300e-003 | | 0.0318 | 0.0318 | | 0.0300 | 0.0300 | 0.0000 | 105.4710 | 105.4710 | 0.0251 | 0.0000 | 106.0983 |
| **Total** | **0.0716** | **0.6545** | **0.7391** | **1.2300e-003** | | **0.0318** | **0.0318** | | **0.0300** | **0.0300** | **0.0000** | **105.4710** | **105.4710** | **0.0251** | **0.0000** | **106.0983** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 6.6100e-003 | 0.2293 | 0.0673 | 8.0000e-004 | 0.0209 | 2.6000e-004 | 0.0212 | 6.0400e-003 | 2.5000e-004 | 6.2900e-003 | 0.0000 | 77.9564 | 77.9564 | 4.2900e-003 | 0.0000 | 78.0637 |
| Worker | 0.0267 | 0.0182 | 0.2146 | 7.1000e-004 | 0.0794 | 5.6000e-004 | 0.0799 | 0.0211 | 5.2000e-004 | 0.0216 | 0.0000 | 64.1725 | 64.1725 | 1.5100e-003 | 0.0000 | 64.2102 |
| **Total** | **0.0333** | **0.2475** | **0.2820** | **1.5100e-003** | **0.1003** | **8.2000e-004** | **0.1011** | **0.0271** | **7.7000e-004** | **0.0279** | **0.0000** | **142.1289** | **142.1289** | **5.8000e-003** | **0.0000** | **142.2739** |

## 3.7 New Tower 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 | | | | | 0.0984 | 0.0000 | 0.0984 | 0.0505 | 0.0000 | 0.0505 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0292 | 0.3128 | 0.2291 | 4.4000e-004 | | 0.0141 | 0.0141 | | 0.0130 | 0.0130 | 0.0000 | 39.0822 | 39.0822 | 0.0126 | 0.0000 | 39.3982 |
| **Total** | **0.0292** | **0.3128** | **0.2291** | **4.4000e-004** | **0.0984** | **0.0141** | **0.1125** | **0.0505** | **0.0130** | **0.0635** | **0.0000** | **39.0822** | **39.0822** | **0.0126** | **0.0000** | **39.3982** |

### 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 | 0.0111 | 0.3834 | 0.0870 | 1.2000e-003 | 0.0274 | 1.0800e-003 | 0.0285 | 7.5200e-003 | 1.0400e-003 | 8.5600e-003 | 0.0000 | 117.6121 | 117.6121 | 8.0000e-003 | 0.0000 | 117.8121 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 8.8000e-004 | 6.3000e-004 | 7.2400e-003 | 2.0000e-005 | 2.4700e-003 | 2.0000e-005 | 2.4900e-003 | 6.6000e-004 | 2.0000e-005 | 6.7000e-004 | 0.0000 | 2.0731 | 2.0731 | 5.0000e-005 | 0.0000 | 2.0745 |
| **Total** | **0.0120** | **0.3841** | **0.0943** | **1.2200e-003** | **0.0299** | **1.1000e-003** | **0.0310** | **8.1800e-003** | **1.0600e-003** | **9.2300e-003** | **0.0000** | **119.6853** | **119.6853** | **8.0500e-003** | **0.0000** | **119.8865** |

## 3.7 New Tower Grading - 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 | | | | | 0.0443 | 0.0000 | 0.0443 | 0.0227 | 0.0000 | 0.0227 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0292 | 0.3128 | 0.2291 | 4.4000e-004 | | 0.0141 | 0.0141 | | 0.0130 | 0.0130 | 0.0000 | 39.0821 | 39.0821 | 0.0126 | 0.0000 | 39.3981 |
| **Total** | **0.0292** | **0.3128** | **0.2291** | **4.4000e-004** | **0.0443** | **0.0141** | **0.0584** | **0.0227** | **0.0130** | **0.0357** | **0.0000** | **39.0821** | **39.0821** | **0.0126** | **0.0000** | **39.3981** |

### 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 | 0.0111 | 0.3834 | 0.0870 | 1.2000e-003 | 0.0274 | 1.0800e-003 | 0.0285 | 7.5200e-003 | 1.0400e-003 | 8.5600e-003 | 0.0000 | 117.6121 | 117.6121 | 8.0000e-003 | 0.0000 | 117.8121 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 8.8000e-004 | 6.3000e-004 | 7.2400e-003 | 2.0000e-005 | 2.4700e-003 | 2.0000e-005 | 2.4900e-003 | 6.6000e-004 | 2.0000e-005 | 6.7000e-004 | 0.0000 | 2.0731 | 2.0731 | 5.0000e-005 | 0.0000 | 2.0745 |
| **Total** | **0.0120** | **0.3841** | **0.0943** | **1.2200e-003** | **0.0299** | **1.1000e-003** | **0.0310** | **8.1800e-003** | **1.0600e-003** | **9.2300e-003** | **0.0000** | **119.6853** | **119.6853** | **8.0500e-003** | **0.0000** | **119.8865** |

## 3.8 Building I Renovation - 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 | 0.0777 | 0.6196 | 0.7243 | 1.1200e-003 | | 0.0345 | 0.0345 | | 0.0331 | 0.0331 | 0.0000 | 94.8168 | 94.8168 | 0.0147 | 0.0000 | 95.1851 |
| **Total** | **0.0777** | **0.6196** | **0.7243** | **1.1200e-003** | | **0.0345** | **0.0345** | | **0.0331** | **0.0331** | **0.0000** | **94.8168** | **94.8168** | **0.0147** | **0.0000** | **95.1851** |

### 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 | 0.0160 | 0.5492 | 0.1357 | 1.4900e-003 | 0.0377 | 1.0100e-003 | 0.0387 | 0.0109 | 9.7000e-004 | 0.0119 | 0.0000 | 144.8594 | 144.8594 | 8.8900e-003 | 0.0000 | 145.0817 |
| Worker | 0.0510 | 0.0363 | 0.4195 | 1.3300e-003 | 0.1430 | 1.0400e-003 | 0.1441 | 0.0380 | 9.6000e-004 | 0.0390 | 0.0000 | 120.1317 | 120.1317 | 3.0200e-003 | 0.0000 | 120.2072 |
| **Total** | **0.0670** | **0.5855** | **0.5553** | **2.8200e-003** | **0.1808** | **2.0500e-003** | **0.1828** | **0.0489** | **1.9300e-003** | **0.0508** | **0.0000** | **264.9911** | **264.9911** | **0.0119** | **0.0000** | **265.2889** |

## 3.8 Building I Renovation - 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 | 0.0777 | 0.6196 | 0.7243 | 1.1200e-003 | | 0.0345 | 0.0345 | | 0.0331 | 0.0331 | 0.0000 | 94.8167 | 94.8167 | 0.0147 | 0.0000 | 95.1850 |
| **Total** | **0.0777** | **0.6196** | **0.7243** | **1.1200e-003** | | **0.0345** | **0.0345** | | **0.0331** | **0.0331** | **0.0000** | **94.8167** | **94.8167** | **0.0147** | **0.0000** | **95.1850** |

### 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 | 0.0160 | 0.5492 | 0.1357 | 1.4900e-003 | 0.0377 | 1.0100e-003 | 0.0387 | 0.0109 | 9.7000e-004 | 0.0119 | 0.0000 | 144.8594 | 144.8594 | 8.8900e-003 | 0.0000 | 145.0817 |
| Worker | 0.0510 | 0.0363 | 0.4195 | 1.3300e-003 | 0.1430 | 1.0400e-003 | 0.1441 | 0.0380 | 9.6000e-004 | 0.0390 | 0.0000 | 120.1317 | 120.1317 | 3.0200e-003 | 0.0000 | 120.2072 |
| **Total** | **0.0670** | **0.5855** | **0.5553** | **2.8200e-003** | **0.1808** | **2.0500e-003** | **0.1828** | **0.0489** | **1.9300e-003** | **0.0508** | **0.0000** | **264.9911** | **264.9911** | **0.0119** | **0.0000** | **265.2889** |

## 3.9 New Tower Construction - 2022

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.1382 | 1.2649 | 1.3254 | 2.1800e-003 | | 0.0655 | 0.0655 | | 0.0617 | 0.0617 | 0.0000 | 187.6975 | 187.6975 | 0.0450 | 0.0000 | 188.8216 |
| **Total** | **0.1382** | **1.2649** | **1.3254** | **2.1800e-003** | | **0.0655** | **0.0655** | | **0.0617** | **0.0617** | **0.0000** | **187.6975** | **187.6975** | **0.0450** | **0.0000** | **188.8216** |

### 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 | 0.0158 | 0.5425 | 0.1341 | 1.4800e-003 | 0.0373 | 1.0000e-003 | 0.0383 | 0.0108 | 9.5000e-004 | 0.0117 | 0.0000 | 143.0928 | 143.0928 | 8.7900e-003 | 0.0000 | 143.3124 |
| Worker | 0.0504 | 0.0358 | 0.4144 | 1.3100e-003 | 0.1413 | 1.0300e-003 | 0.1423 | 0.0375 | 9.5000e-004 | 0.0385 | 0.0000 | 118.6667 | 118.6667 | 2.9800e-003 | 0.0000 | 118.7412 |
| **Total** | **0.0662** | **0.5783** | **0.5485** | **2.7900e-003** | **0.1786** | **2.0300e-003** | **0.1806** | **0.0483** | **1.9000e-003** | **0.0502** | **0.0000** | **261.7595** | **261.7595** | **0.0118** | **0.0000** | **262.0537** |

## 3.9 New Tower Construction - 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 | 0.1382 | 1.2649 | 1.3254 | 2.1800e-003 | | 0.0655 | 0.0655 | | 0.0617 | 0.0617 | 0.0000 | 187.6972 | 187.6972 | 0.0450 | 0.0000 | 188.8214 |
| **Total** | **0.1382** | **1.2649** | **1.3254** | **2.1800e-003** | | **0.0655** | **0.0655** | | **0.0617** | **0.0617** | **0.0000** | **187.6972** | **187.6972** | **0.0450** | **0.0000** | **188.8214** |

### 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 | 0.0158 | 0.5425 | 0.1341 | 1.4800e-003 | 0.0373 | 1.0000e-003 | 0.0383 | 0.0108 | 9.5000e-004 | 0.0117 | 0.0000 | 143.0928 | 143.0928 | 8.7900e-003 | 0.0000 | 143.3124 |
| Worker | 0.0504 | 0.0358 | 0.4144 | 1.3100e-003 | 0.1413 | 1.0300e-003 | 0.1423 | 0.0375 | 9.5000e-004 | 0.0385 | 0.0000 | 118.6667 | 118.6667 | 2.9800e-003 | 0.0000 | 118.7412 |
| **Total** | **0.0662** | **0.5783** | **0.5485** | **2.7900e-003** | **0.1786** | **2.0300e-003** | **0.1806** | **0.0483** | **1.9000e-003** | **0.0502** | **0.0000** | **261.7595** | **261.7595** | **0.0118** | **0.0000** | **262.0537** |

## 3.9 New Tower 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 | 0.2045 | 1.8700 | 2.1117 | 3.5000e-003 | | 0.0910 | 0.0910 | | 0.0856 | 0.0856 | 0.0000 | 301.3462 | 301.3462 | 0.0717 | 0.0000 | 303.1383 |
| **Total** | **0.2045** | **1.8700** | **2.1117** | **3.5000e-003** | | **0.0910** | **0.0910** | | **0.0856** | **0.0856** | **0.0000** | **301.3462** | **301.3462** | **0.0717** | **0.0000** | **303.1383** |

### 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 | 0.0189 | 0.6551 | 0.1924 | 2.3000e-003 | 0.0598 | 7.5000e-004 | 0.0606 | 0.0173 | 7.1000e-004 | 0.0180 | 0.0000 | 222.7327 | 222.7327 | 0.0123 | 0.0000 | 223.0392 |
| Worker | 0.0762 | 0.0520 | 0.6133 | 2.0300e-003 | 0.2268 | 1.6100e-003 | 0.2284 | 0.0602 | 1.4800e-003 | 0.0617 | 0.0000 | 183.3500 | 183.3500 | 4.3100e-003 | 0.0000 | 183.4577 |
| **Total** | **0.0951** | **0.7072** | **0.8056** | **4.3300e-003** | **0.2866** | **2.3600e-003** | **0.2890** | **0.0775** | **2.1900e-003** | **0.0797** | **0.0000** | **406.0827** | **406.0827** | **0.0166** | **0.0000** | **406.4969** |

## 3.9 New Tower Construction - 2023

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.2045 | 1.8700 | 2.1117 | 3.5000e-003 | | 0.0910 | 0.0910 | | 0.0856 | 0.0856 | 0.0000 | 301.3458 | 301.3458 | 0.0717 | 0.0000 | 303.1380 |
| **Total** | **0.2045** | **1.8700** | **2.1117** | **3.5000e-003** | | **0.0910** | **0.0910** | | **0.0856** | **0.0856** | **0.0000** | **301.3458** | **301.3458** | **0.0717** | **0.0000** | **303.1380** |

### 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 | 0.0189 | 0.6551 | 0.1924 | 2.3000e-003 | 0.0598 | 7.5000e-004 | 0.0606 | 0.0173 | 7.1000e-004 | 0.0180 | 0.0000 | 222.7327 | 222.7327 | 0.0123 | 0.0000 | 223.0392 |
| Worker | 0.0762 | 0.0520 | 0.6133 | 2.0300e-003 | 0.2268 | 1.6100e-003 | 0.2284 | 0.0602 | 1.4800e-003 | 0.0617 | 0.0000 | 183.3500 | 183.3500 | 4.3100e-003 | 0.0000 | 183.4577 |
| **Total** | **0.0951** | **0.7072** | **0.8056** | **4.3300e-003** | **0.2866** | **2.3600e-003** | **0.2890** | **0.0775** | **2.1900e-003** | **0.0797** | **0.0000** | **406.0827** | **406.0827** | **0.0166** | **0.0000** | **406.4969** |

## 3.9 New Tower Construction - 2024

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.1177 | 1.0755 | 1.2934 | 2.1600e-003 | | 0.0491 | 0.0491 | | 0.0462 | 0.0462 | 0.0000 | 185.4793 | 185.4793 | 0.0439 | 0.0000 | 186.5758 |
| **Total** | **0.1177** | **1.0755** | **1.2934** | **2.1600e-003** | | **0.0491** | **0.0491** | | **0.0462** | **0.0462** | **0.0000** | **185.4793** | **185.4793** | **0.0439** | **0.0000** | **186.5758** |

### 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 | 0.0114 | 0.4022 | 0.1149 | 1.4100e-003 | 0.0368 | 4.5000e-004 | 0.0373 | 0.0106 | 4.3000e-004 | 0.0111 | 0.0000 | 136.5820 | 136.5820 | 7.4200e-003 | 0.0000 | 136.7676 |
| Worker | 0.0444 | 0.0292 | 0.3520 | 1.2100e-003 | 0.1396 | 9.8000e-004 | 0.1405 | 0.0371 | 9.0000e-004 | 0.0380 | 0.0000 | 109.1177 | 109.1177 | 2.4300e-003 | 0.0000 | 109.1784 |
| **Total** | **0.0558** | **0.4314** | **0.4669** | **2.6200e-003** | **0.1764** | **1.4300e-003** | **0.1778** | **0.0477** | **1.3300e-003** | **0.0490** | **0.0000** | **245.6997** | **245.6997** | **9.8500e-003** | **0.0000** | **245.9460** |

## 3.9 New Tower Construction - 2024

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.1177 | 1.0755 | 1.2933 | 2.1600e-003 | | 0.0491 | 0.0491 | | 0.0462 | 0.0462 | 0.0000 | 185.4791 | 185.4791 | 0.0439 | 0.0000 | 186.5756 |
| **Total** | **0.1177** | **1.0755** | **1.2933** | **2.1600e-003** | | **0.0491** | **0.0491** | | **0.0462** | **0.0462** | **0.0000** | **185.4791** | **185.4791** | **0.0439** | **0.0000** | **186.5756** |

### 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 | 0.0114 | 0.4022 | 0.1149 | 1.4100e-003 | 0.0368 | 4.5000e-004 | 0.0373 | 0.0106 | 4.3000e-004 | 0.0111 | 0.0000 | 136.5820 | 136.5820 | 7.4200e-003 | 0.0000 | 136.7676 |
| Worker | 0.0444 | 0.0292 | 0.3520 | 1.2100e-003 | 0.1396 | 9.8000e-004 | 0.1405 | 0.0371 | 9.0000e-004 | 0.0380 | 0.0000 | 109.1177 | 109.1177 | 2.4300e-003 | 0.0000 | 109.1784 |
| **Total** | **0.0558** | **0.4314** | **0.4669** | **2.6200e-003** | **0.1764** | **1.4300e-003** | **0.1778** | **0.0477** | **1.3300e-003** | **0.0490** | **0.0000** | **245.6997** | **245.6997** | **9.8500e-003** | **0.0000** | **245.9460** |

## 3.10 Building A Canopy - 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 | 0.1164 | 1.0645 | 1.2021 | 1.9900e-003 | | 0.0518 | 0.0518 | | 0.0487 | 0.0487 | 0.0000 | 171.5355 | 171.5355 | 0.0408 | 0.0000 | 172.5557 |
| **Total** | **0.1164** | **1.0645** | **1.2021** | **1.9900e-003** | | **0.0518** | **0.0518** | | **0.0487** | **0.0487** | **0.0000** | **171.5355** | **171.5355** | **0.0408** | **0.0000** | **172.5557** |

### 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 | 0.0108 | 0.3729 | 0.1095 | 1.3100e-003 | 0.0341 | 4.2000e-004 | 0.0345 | 9.8200e-003 | 4.1000e-004 | 0.0102 | 0.0000 | 126.7863 | 126.7863 | 6.9800e-003 | 0.0000 | 126.9608 |
| Worker | 0.0434 | 0.0296 | 0.3491 | 1.1500e-003 | 0.1291 | 9.2000e-004 | 0.1300 | 0.0343 | 8.4000e-004 | 0.0351 | 0.0000 | 104.3684 | 104.3684 | 2.4500e-003 | 0.0000 | 104.4298 |
| **Total** | **0.0541** | **0.4025** | **0.4586** | **2.4600e-003** | **0.1631** | **1.3400e-003** | **0.1645** | **0.0441** | **1.2500e-003** | **0.0454** | **0.0000** | **231.1547** | **231.1547** | **9.4300e-003** | **0.0000** | **231.3905** |

## 3.10 Building A Canopy - 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 | | | | | |
| Off-Road | 0.1164 | 1.0645 | 1.2021 | 1.9900e-003 | | 0.0518 | 0.0518 | | 0.0487 | 0.0487 | 0.0000 | 171.5353 | 171.5353 | 0.0408 | 0.0000 | 172.5555 |
| **Total** | **0.1164** | **1.0645** | **1.2021** | **1.9900e-003** | | **0.0518** | **0.0518** | | **0.0487** | **0.0487** | **0.0000** | **171.5353** | **171.5353** | **0.0408** | **0.0000** | **172.5555** |

### 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 | 0.0108 | 0.3729 | 0.1095 | 1.3100e-003 | 0.0341 | 4.2000e-004 | 0.0345 | 9.8200e-003 | 4.1000e-004 | 0.0102 | 0.0000 | 126.7863 | 126.7863 | 6.9800e-003 | 0.0000 | 126.9608 |
| Worker | 0.0434 | 0.0296 | 0.3491 | 1.1500e-003 | 0.1291 | 9.2000e-004 | 0.1300 | 0.0343 | 8.4000e-004 | 0.0351 | 0.0000 | 104.3684 | 104.3684 | 2.4500e-003 | 0.0000 | 104.4298 |
| **Total** | **0.0541** | **0.4025** | **0.4586** | **2.4600e-003** | **0.1631** | **1.3400e-003** | **0.1645** | **0.0441** | **1.2500e-003** | **0.0454** | **0.0000** | **231.1547** | **231.1547** | **9.4300e-003** | **0.0000** | **231.3905** |

## 3.11 Building A Renovations - 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 | 0.0642 | 0.5191 | 0.6498 | 1.0200e-003 | | 0.0267 | 0.0267 | | 0.0257 | 0.0257 | 0.0000 | 85.5664 | 85.5664 | 0.0130 | 0.0000 | 85.8914 |
| **Total** | **0.0642** | **0.5191** | **0.6498** | **1.0200e-003** | | **0.0267** | **0.0267** | | **0.0257** | **0.0257** | **0.0000** | **85.5664** | **85.5664** | **0.0130** | **0.0000** | **85.8914** |

### 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 | 0.0108 | 0.3729 | 0.1095 | 1.3100e-003 | 0.0341 | 4.2000e-004 | 0.0345 | 9.8200e-003 | 4.1000e-004 | 0.0102 | 0.0000 | 126.7863 | 126.7863 | 6.9800e-003 | 0.0000 | 126.9608 |
| Worker | 0.0434 | 0.0296 | 0.3491 | 1.1500e-003 | 0.1291 | 9.2000e-004 | 0.1300 | 0.0343 | 8.4000e-004 | 0.0351 | 0.0000 | 104.3684 | 104.3684 | 2.4500e-003 | 0.0000 | 104.4298 |
| **Total** | **0.0541** | **0.4025** | **0.4586** | **2.4600e-003** | **0.1631** | **1.3400e-003** | **0.1645** | **0.0441** | **1.2500e-003** | **0.0454** | **0.0000** | **231.1547** | **231.1547** | **9.4300e-003** | **0.0000** | **231.3905** |

## 3.11 Building A Renovations - 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 | | | | | |
| Off-Road | 0.0642 | 0.5191 | 0.6498 | 1.0200e-003 | | 0.0267 | 0.0267 | | 0.0257 | 0.0257 | 0.0000 | 85.5663 | 85.5663 | 0.0130 | 0.0000 | 85.8913 |
| **Total** | **0.0642** | **0.5191** | **0.6498** | **1.0200e-003** | | **0.0267** | **0.0267** | | **0.0257** | **0.0257** | **0.0000** | **85.5663** | **85.5663** | **0.0130** | **0.0000** | **85.8913** |

### 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 | 0.0108 | 0.3729 | 0.1095 | 1.3100e-003 | 0.0341 | 4.2000e-004 | 0.0345 | 9.8200e-003 | 4.1000e-004 | 0.0102 | 0.0000 | 126.7863 | 126.7863 | 6.9800e-003 | 0.0000 | 126.9608 |
| Worker | 0.0434 | 0.0296 | 0.3491 | 1.1500e-003 | 0.1291 | 9.2000e-004 | 0.1300 | 0.0343 | 8.4000e-004 | 0.0351 | 0.0000 | 104.3684 | 104.3684 | 2.4500e-003 | 0.0000 | 104.4298 |
| **Total** | **0.0541** | **0.4025** | **0.4586** | **2.4600e-003** | **0.1631** | **1.3400e-003** | **0.1645** | **0.0441** | **1.2500e-003** | **0.0454** | **0.0000** | **231.1547** | **231.1547** | **9.4300e-003** | **0.0000** | **231.3905** |

## 3.12 New Tower Architectural Coatings - 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 | 1.1752 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 8.0500e-003 | 0.0547 | 0.0761 | 1.2000e-004 | | 2.9700e-003 | 2.9700e-003 | | 2.9700e-003 | 2.9700e-003 | 0.0000 | 10.7237 | 10.7237 | 6.4000e-004 | 0.0000 | 10.7397 |
| **Total** | **1.1832** | **0.0547** | **0.0761** | **1.2000e-004** | | **2.9700e-003** | **2.9700e-003** | | **2.9700e-003** | **2.9700e-003** | **0.0000** | **10.7237** | **10.7237** | **6.4000e-004** | **0.0000** | **10.7397** |

### 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 | 4.9500e-003 | 3.3800e-003 | 0.0399 | 1.3000e-004 | 0.0148 | 1.0000e-004 | 0.0149 | 3.9200e-003 | 1.0000e-004 | 4.0100e-003 | 0.0000 | 11.9217 | 11.9217 | 2.8000e-004 | 0.0000 | 11.9288 |
| **Total** | **4.9500e-003** | **3.3800e-003** | **0.0399** | **1.3000e-004** | **0.0148** | **1.0000e-004** | **0.0149** | **3.9200e-003** | **1.0000e-004** | **4.0100e-003** | **0.0000** | **11.9217** | **11.9217** | **2.8000e-004** | **0.0000** | **11.9288** |

## 3.12 New Tower Architectural Coatings - 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 | | | | | |
| Archit. Coating | 1.1752 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 8.0500e-003 | 0.0547 | 0.0761 | 1.2000e-004 | | 2.9700e-003 | 2.9700e-003 | | 2.9700e-003 | 2.9700e-003 | 0.0000 | 10.7237 | 10.7237 | 6.4000e-004 | 0.0000 | 10.7397 |
| **Total** | **1.1832** | **0.0547** | **0.0761** | **1.2000e-004** | | **2.9700e-003** | **2.9700e-003** | | **2.9700e-003** | **2.9700e-003** | **0.0000** | **10.7237** | **10.7237** | **6.4000e-004** | **0.0000** | **10.7397** |

### 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 | 4.9500e-003 | 3.3800e-003 | 0.0399 | 1.3000e-004 | 0.0148 | 1.0000e-004 | 0.0149 | 3.9200e-003 | 1.0000e-004 | 4.0100e-003 | 0.0000 | 11.9217 | 11.9217 | 2.8000e-004 | 0.0000 | 11.9288 |
| **Total** | **4.9500e-003** | **3.3800e-003** | **0.0399** | **1.3000e-004** | **0.0148** | **1.0000e-004** | **0.0149** | **3.9200e-003** | **1.0000e-004** | **4.0100e-003** | **0.0000** | **11.9217** | **11.9217** | **2.8000e-004** | **0.0000** | **11.9288** |

## 3.13 South Parking Lot - 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 | 0.0311 | 0.3000 | 0.4607 | 7.2000e-004 | | 0.0148 | 0.0148 | | 0.0136 | 0.0136 | 0.0000 | 63.0836 | 63.0836 | 0.0204 | 0.0000 | 63.5936 |
| Paving | 3.5000e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0346** | **0.3000** | **0.4607** | **7.2000e-004** | | **0.0148** | **0.0148** | | **0.0136** | **0.0136** | **0.0000** | **63.0836** | **63.0836** | **0.0204** | **0.0000** | **63.5936** |

### 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 | 1.6500e-003 | 1.0800e-003 | 0.0131 | 4.0000e-005 | 5.1800e-003 | 4.0000e-005 | 5.2200e-003 | 1.3800e-003 | 3.0000e-005 | 1.4100e-003 | 0.0000 | 4.0533 | 4.0533 | 9.0000e-005 | 0.0000 | 4.0556 |
| **Total** | **1.6500e-003** | **1.0800e-003** | **0.0131** | **4.0000e-005** | **5.1800e-003** | **4.0000e-005** | **5.2200e-003** | **1.3800e-003** | **3.0000e-005** | **1.4100e-003** | **0.0000** | **4.0533** | **4.0533** | **9.0000e-005** | **0.0000** | **4.0556** |

## 3.13 South Parking Lot - 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 | 0.0311 | 0.3000 | 0.4607 | 7.2000e-004 | | 0.0148 | 0.0148 | | 0.0136 | 0.0136 | 0.0000 | 63.0835 | 63.0835 | 0.0204 | 0.0000 | 63.5936 |
| Paving | 3.5000e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0346** | **0.3000** | **0.4607** | **7.2000e-004** | | **0.0148** | **0.0148** | | **0.0136** | **0.0136** | **0.0000** | **63.0835** | **63.0835** | **0.0204** | **0.0000** | **63.5936** |

### 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 | 1.6500e-003 | 1.0800e-003 | 0.0131 | 4.0000e-005 | 5.1800e-003 | 4.0000e-005 | 5.2200e-003 | 1.3800e-003 | 3.0000e-005 | 1.4100e-003 | 0.0000 | 4.0533 | 4.0533 | 9.0000e-005 | 0.0000 | 4.0556 |
| **Total** | **1.6500e-003** | **1.0800e-003** | **0.0131** | **4.0000e-005** | **5.1800e-003** | **4.0000e-005** | **5.2200e-003** | **1.3800e-003** | **3.0000e-005** | **1.4100e-003** | **0.0000** | **4.0533** | **4.0533** | **9.0000e-005** | **0.0000** | **4.0556** |

## 3.13 South Parking Lot - 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 | 0.0101 | 0.0944 | 0.1604 | 2.5000e-004 | | 4.6000e-003 | 4.6000e-003 | | 4.2400e-003 | 4.2400e-003 | 0.0000 | 22.0212 | 22.0212 | 7.1200e-003 | 0.0000 | 22.1992 |
| Paving | 1.2200e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0113** | **0.0944** | **0.1604** | **2.5000e-004** | | **4.6000e-003** | **4.6000e-003** | | **4.2400e-003** | **4.2400e-003** | **0.0000** | **22.0212** | **22.0212** | **7.1200e-003** | **0.0000** | **22.1992** |

### 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 | 5.5000e-004 | 3.5000e-004 | 4.2400e-003 | 2.0000e-005 | 1.8100e-003 | 1.0000e-005 | 1.8200e-003 | 4.8000e-004 | 1.0000e-005 | 4.9000e-004 | 0.0000 | 1.3597 | 1.3597 | 3.0000e-005 | 0.0000 | 1.3604 |
| **Total** | **5.5000e-004** | **3.5000e-004** | **4.2400e-003** | **2.0000e-005** | **1.8100e-003** | **1.0000e-005** | **1.8200e-003** | **4.8000e-004** | **1.0000e-005** | **4.9000e-004** | **0.0000** | **1.3597** | **1.3597** | **3.0000e-005** | **0.0000** | **1.3604** |

## 3.13 South Parking Lot - 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 | 0.0101 | 0.0944 | 0.1604 | 2.5000e-004 | | 4.6000e-003 | 4.6000e-003 | | 4.2400e-003 | 4.2400e-003 | 0.0000 | 22.0212 | 22.0212 | 7.1200e-003 | 0.0000 | 22.1992 |
| Paving | 1.2200e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0113** | **0.0944** | **0.1604** | **2.5000e-004** | | **4.6000e-003** | **4.6000e-003** | | **4.2400e-003** | **4.2400e-003** | **0.0000** | **22.0212** | **22.0212** | **7.1200e-003** | **0.0000** | **22.1992** |

### 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 | 5.5000e-004 | 3.5000e-004 | 4.2400e-003 | 2.0000e-005 | 1.8100e-003 | 1.0000e-005 | 1.8200e-003 | 4.8000e-004 | 1.0000e-005 | 4.9000e-004 | 0.0000 | 1.3597 | 1.3597 | 3.0000e-005 | 0.0000 | 1.3604 |
| **Total** | **5.5000e-004** | **3.5000e-004** | **4.2400e-003** | **2.0000e-005** | **1.8100e-003** | **1.0000e-005** | **1.8200e-003** | **4.8000e-004** | **1.0000e-005** | **4.9000e-004** | **0.0000** | **1.3597** | **1.3597** | **3.0000e-005** | **0.0000** | **1.3604** |

## 3.14 Building A Construction Post Occupance - 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 | 0.0306 | 0.2539 | 0.3572 | 5.6000e-004 | | 0.0110 | 0.0110 | | 0.0106 | 0.0106 | 0.0000 | 47.4084 | 47.4084 | 6.9300e-003 | 0.0000 | 47.5817 |
| **Total** | **0.0306** | **0.2539** | **0.3572** | **5.6000e-004** | | **0.0110** | **0.0110** | | **0.0106** | **0.0106** | **0.0000** | **47.4084** | **47.4084** | **6.9300e-003** | **0.0000** | **47.5817** |

### 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 | 5.6800e-003 | 0.2043 | 0.0573 | 7.2000e-004 | 0.0189 | 2.3000e-004 | 0.0191 | 5.4400e-003 | 2.2000e-004 | 5.6600e-003 | 0.0000 | 69.6053 | 69.6053 | 3.7400e-003 | 0.0000 | 69.6988 |
| Worker | 0.0217 | 0.0137 | 0.1675 | 5.9000e-004 | 0.0715 | 4.9000e-004 | 0.0720 | 0.0190 | 4.5000e-004 | 0.0195 | 0.0000 | 53.7199 | 53.7199 | 1.1300e-003 | 0.0000 | 53.7483 |
| **Total** | **0.0273** | **0.2180** | **0.2249** | **1.3100e-003** | **0.0904** | **7.2000e-004** | **0.0911** | **0.0244** | **6.7000e-004** | **0.0251** | **0.0000** | **123.3252** | **123.3252** | **4.8700e-003** | **0.0000** | **123.4471** |

## 3.14 Building A Construction Post Occupance - 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 | 0.0306 | 0.2539 | 0.3572 | 5.6000e-004 | | 0.0110 | 0.0110 | | 0.0106 | 0.0106 | 0.0000 | 47.4083 | 47.4083 | 6.9300e-003 | 0.0000 | 47.5816 |
| **Total** | **0.0306** | **0.2539** | **0.3572** | **5.6000e-004** | | **0.0110** | **0.0110** | | **0.0106** | **0.0106** | **0.0000** | **47.4083** | **47.4083** | **6.9300e-003** | **0.0000** | **47.5816** |

### 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 | 5.6800e-003 | 0.2043 | 0.0573 | 7.2000e-004 | 0.0189 | 2.3000e-004 | 0.0191 | 5.4400e-003 | 2.2000e-004 | 5.6600e-003 | 0.0000 | 69.6053 | 69.6053 | 3.7400e-003 | 0.0000 | 69.6988 |
| Worker | 0.0217 | 0.0137 | 0.1675 | 5.9000e-004 | 0.0715 | 4.9000e-004 | 0.0720 | 0.0190 | 4.5000e-004 | 0.0195 | 0.0000 | 53.7199 | 53.7199 | 1.1300e-003 | 0.0000 | 53.7483 |
| **Total** | **0.0273** | **0.2180** | **0.2249** | **1.3100e-003** | **0.0904** | **7.2000e-004** | **0.0911** | **0.0244** | **6.7000e-004** | **0.0251** | **0.0000** | **123.3252** | **123.3252** | **4.8700e-003** | **0.0000** | **123.4471** |

## 3.15 Buildings B-H Demolition - 2025

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0468 | 0.0000 | 0.0468 | 7.0800e-003 | 0.0000 | 7.0800e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.1423 | 1.3054 | 1.3205 | 2.6400e-003 | | 0.0580 | 0.0580 | | 0.0539 | 0.0539 | 0.0000 | 231.1840 | 231.1840 | 0.0646 | 0.0000 | 232.7979 |
| **Total** | **0.1423** | **1.3054** | **1.3205** | **2.6400e-003** | **0.0468** | **0.0580** | **0.1048** | **7.0800e-003** | **0.0539** | **0.0609** | **0.0000** | **231.1840** | **231.1840** | **0.0646** | **0.0000** | **232.7979** |

### 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 | 1.0000e-003 | 0.0327 | 0.0109 | 1.5000e-004 | 3.7100e-003 | 6.0000e-005 | 3.7700e-003 | 1.0200e-003 | 6.0000e-005 | 1.0800e-003 | 0.0000 | 15.1650 | 15.1650 | 9.9000e-004 | 0.0000 | 15.1897 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 3.3900e-003 | 2.1400e-003 | 0.0262 | 9.0000e-005 | 0.0112 | 8.0000e-005 | 0.0113 | 2.9700e-003 | 7.0000e-005 | 3.0400e-003 | 0.0000 | 8.4053 | 8.4053 | 1.8000e-004 | 0.0000 | 8.4098 |
| **Total** | **4.3900e-003** | **0.0348** | **0.0371** | **2.4000e-004** | **0.0149** | **1.4000e-004** | **0.0150** | **3.9900e-003** | **1.3000e-004** | **4.1200e-003** | **0.0000** | **23.5703** | **23.5703** | **1.1700e-003** | **0.0000** | **23.5995** |

## 3.15 Buildings B-H Demolition - 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 | | | | | 0.0210 | 0.0000 | 0.0210 | 3.1900e-003 | 0.0000 | 3.1900e-003 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.1423 | 1.3054 | 1.3205 | 2.6400e-003 | | 0.0580 | 0.0580 | | 0.0539 | 0.0539 | 0.0000 | 231.1838 | 231.1838 | 0.0646 | 0.0000 | 232.7976 |
| **Total** | **0.1423** | **1.3054** | **1.3205** | **2.6400e-003** | **0.0210** | **0.0580** | **0.0790** | **3.1900e-003** | **0.0539** | **0.0570** | **0.0000** | **231.1838** | **231.1838** | **0.0646** | **0.0000** | **232.7976** |

### 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 | 1.0000e-003 | 0.0327 | 0.0109 | 1.5000e-004 | 3.7100e-003 | 6.0000e-005 | 3.7700e-003 | 1.0200e-003 | 6.0000e-005 | 1.0800e-003 | 0.0000 | 15.1650 | 15.1650 | 9.9000e-004 | 0.0000 | 15.1897 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 3.3900e-003 | 2.1400e-003 | 0.0262 | 9.0000e-005 | 0.0112 | 8.0000e-005 | 0.0113 | 2.9700e-003 | 7.0000e-005 | 3.0400e-003 | 0.0000 | 8.4053 | 8.4053 | 1.8000e-004 | 0.0000 | 8.4098 |
| **Total** | **4.3900e-003** | **0.0348** | **0.0371** | **2.4000e-004** | **0.0149** | **1.4000e-004** | **0.0150** | **3.9900e-003** | **1.3000e-004** | **4.1200e-003** | **0.0000** | **23.5703** | **23.5703** | **1.1700e-003** | **0.0000** | **23.5995** |

## 3.16 East Parking Lot - 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 | 5.9500e-003 | 0.0558 | 0.0948 | 1.5000e-004 | | 2.7200e-003 | 2.7200e-003 | | 2.5000e-003 | 2.5000e-003 | 0.0000 | 13.0125 | 13.0125 | 4.2100e-003 | 0.0000 | 13.1177 |
| Paving | 6.7000e-004 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **6.6200e-003** | **0.0558** | **0.0948** | **1.5000e-004** | | **2.7200e-003** | **2.7200e-003** | | **2.5000e-003** | **2.5000e-003** | **0.0000** | **13.0125** | **13.0125** | **4.2100e-003** | **0.0000** | **13.1177** |

### 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 | 3.2000e-004 | 2.0000e-004 | 2.5100e-003 | 1.0000e-005 | 1.0700e-003 | 1.0000e-005 | 1.0800e-003 | 2.8000e-004 | 1.0000e-005 | 2.9000e-004 | 0.0000 | 0.8035 | 0.8035 | 2.0000e-005 | 0.0000 | 0.8039 |
| **Total** | **3.2000e-004** | **2.0000e-004** | **2.5100e-003** | **1.0000e-005** | **1.0700e-003** | **1.0000e-005** | **1.0800e-003** | **2.8000e-004** | **1.0000e-005** | **2.9000e-004** | **0.0000** | **0.8035** | **0.8035** | **2.0000e-005** | **0.0000** | **0.8039** |

## 3.16 East Parking Lot - 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 | 5.9500e-003 | 0.0558 | 0.0948 | 1.5000e-004 | | 2.7200e-003 | 2.7200e-003 | | 2.5000e-003 | 2.5000e-003 | 0.0000 | 13.0125 | 13.0125 | 4.2100e-003 | 0.0000 | 13.1177 |
| Paving | 6.7000e-004 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **6.6200e-003** | **0.0558** | **0.0948** | **1.5000e-004** | | **2.7200e-003** | **2.7200e-003** | | **2.5000e-003** | **2.5000e-003** | **0.0000** | **13.0125** | **13.0125** | **4.2100e-003** | **0.0000** | **13.1177** |

### 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 | 3.2000e-004 | 2.0000e-004 | 2.5100e-003 | 1.0000e-005 | 1.0700e-003 | 1.0000e-005 | 1.0800e-003 | 2.8000e-004 | 1.0000e-005 | 2.9000e-004 | 0.0000 | 0.8035 | 0.8035 | 2.0000e-005 | 0.0000 | 0.8039 |
| **Total** | **3.2000e-004** | **2.0000e-004** | **2.5100e-003** | **1.0000e-005** | **1.0700e-003** | **1.0000e-005** | **1.0800e-003** | **2.8000e-004** | **1.0000e-005** | **2.9000e-004** | **0.0000** | **0.8035** | **0.8035** | **2.0000e-005** | **0.0000** | **0.8039** |

## 3.16 East Parking Lot - 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 | 0.0362 | 0.3390 | 0.5758 | 9.0000e-004 | | 0.0165 | 0.0165 | | 0.0152 | 0.0152 | 0.0000 | 79.0761 | 79.0761 | 0.0256 | 0.0000 | 79.7154 |
| Paving | 4.0500e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0402** | **0.3390** | **0.5758** | **9.0000e-004** | | **0.0165** | **0.0165** | | **0.0152** | **0.0152** | **0.0000** | **79.0761** | **79.0761** | **0.0256** | **0.0000** | **79.7154** |

### 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 | 1.8800e-003 | 1.1400e-003 | 0.0142 | 5.0000e-005 | 6.5000e-003 | 4.0000e-005 | 6.5400e-003 | 1.7300e-003 | 4.0000e-005 | 1.7700e-003 | 0.0000 | 4.7094 | 4.7094 | 9.0000e-005 | 0.0000 | 4.7118 |
| **Total** | **1.8800e-003** | **1.1400e-003** | **0.0142** | **5.0000e-005** | **6.5000e-003** | **4.0000e-005** | **6.5400e-003** | **1.7300e-003** | **4.0000e-005** | **1.7700e-003** | **0.0000** | **4.7094** | **4.7094** | **9.0000e-005** | **0.0000** | **4.7118** |

### 3.16 East Parking Lot - 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 | 0.0362 | 0.3390 | 0.5758 | 9.0000e-004 | | 0.0165 | 0.0165 | | 0.0152 | 0.0152 | 0.0000 | 79.0760 | 79.0760 | 0.0256 | 0.0000 | 79.7153 |
| Paving | 4.0500e-003 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0402** | **0.3390** | **0.5758** | **9.0000e-004** | | **0.0165** | **0.0165** | | **0.0152** | **0.0152** | **0.0000** | **79.0760** | **79.0760** | **0.0256** | **0.0000** | **79.7153** |

**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 | 1.8800e-003 | 1.1400e-003 | 0.0142 | 5.0000e-005 | 6.5000e-003 | 4.0000e-005 | 6.5400e-003 | 1.7300e-003 | 4.0000e-005 | 1.7700e-003 | 0.0000 | 4.7094 | 4.7094 | 9.0000e-005 | 0.0000 | 4.7118 |
| **Total** | **1.8800e-003** | **1.1400e-003** | **0.0142** | **5.0000e-005** | **6.5000e-003** | **4.0000e-005** | **6.5400e-003** | **1.7300e-003** | **4.0000e-005** | **1.7700e-003** | **0.0000** | **4.7094** | **4.7094** | **9.0000e-005** | **0.0000** | **4.7118** |

## 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 | 0.4832 | 2.5312 | 6.8527 | 0.0306 | 2.9043 | 0.0216 | 2.9259 | 0.7781 | 0.0201 | 0.7981 | 0.0000 | 2,833.1376 | 2,833.1376 | 0.1181 | 0.0000 | 2,836.0888 |
| Unmitigated | 0.4832 | 2.5312 | 6.8527 | 0.0306 | 2.9043 | 0.0216 | 2.9259 | 0.7781 | 0.0201 | 0.7981 | 0.0000 | 2,833.1376 | 2,833.1376 | 0.1181 | 0.0000 | 2,836.0888 |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Hospital | 2,232.00 | 1,404.00 | 1240.00 | 7,645,132 | 7,645,132 |
| Parking Lot | 0.00 | 0.00 | 0.00 | | |
| Total | 2,232.00 | 1,404.00 | 1,240.00 | 7,645,132 | 7,645,132 |

## 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 |
| Hospital | 16.60 | 8.40 | 6.90 | 64.90 | 16.10 | 19.00 | 73 | 25 | 2 |
| Parking Lot | 16.60 | 8.40 | 6.90 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hospital | 0.551582 | 0.041972 | 0.204917 | 0.113538 | 0.013798 | 0.005777 | 0.022002 | 0.036198 | 0.002156 | 0.001623 | 0.004914 | 0.000716 | 0.000809 |
| Parking Lot | 0.551582 | 0.041972 | 0.204917 | 0.113538 | 0.013798 | 0.005777 | 0.022002 | 0.036198 | 0.002156 | 0.001623 | 0.004914 | 0.000716 | 0.000809 |

## 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 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 | 844.5571 | 844.5571 | 0.0350 | 7.7700e-003 | 847.7463 |
| Electricity Unmitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 913.1361 | 913.1361 | 0.0378 | 8.4000e-003 | 916.5842 |
| NaturalGas Mitigated | 0.0911 | 0.8285 | 0.6959 | 4.9700e-003 | | 0.0630 | 0.0630 | | 0.0630 | 0.0630 | 0.0000 | 901.8640 | 901.8640 | 0.0173 | 0.0165 | 907.2233 |
| NaturalGas Unmitigated | 0.1011 | 0.9189 | 0.7719 | 5.5100e-003 | | 0.0698 | 0.0698 | | 0.0698 | 0.0698 | 0.0000 | 1,000.3554 | 1,000.3554 | 0.0192 | 0.0183 | 1,006.3000 |

## 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 | | | | | |
| Hospital | 1.8746e+007 | 0.1011 | 0.9189 | 0.7719 | 5.5100e-003 | | 0.0698 | 0.0698 | | 0.0698 | 0.0698 | 0.0000 | 1,000.3554 | 1,000.3554 | 0.0192 | 0.0183 | 1,006.3000 |
| 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 |
| **Total** | | **0.1011** | **0.9189** | **0.7719** | **5.5100e-003** | | **0.0698** | **0.0698** | | **0.0698** | **0.0698** | **0.0000** | **1,000.3554** | **1,000.3554** | **0.0192** | **0.0183** | **1,006.3000** |

### 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 | | | | | |
| Hospital | 1.69003e+007 | 0.0911 | 0.8285 | 0.6959 | 4.9700e-003 | | 0.0630 | 0.0630 | | 0.0630 | 0.0630 | 0.0000 | 901.8640 | 901.8640 | 0.0173 | 0.0165 | 907.2233 |
| 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 |
| **Total** | | **0.0911** | **0.8285** | **0.6959** | **4.9700e-003** | | **0.0630** | **0.0630** | | **0.0630** | **0.0630** | **0.0000** | **901.8640** | **901.8640** | **0.0173** | **0.0165** | **907.2233** |

## 5.3 Energy by Land Use - Electricity

**Unmitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Hospital | 4.57479e+006 | 902.3107 | 0.0374 | 8.3000e-003 | 905.7180 |
| Parking Lot | 54885.6 | 10.8254 | 4.5000e-004 | 1.0000e-004 | 10.8663 |
| **Total** | | **913.1361** | **0.0378** | **8.4000e-003** | **916.5842** |

**Mitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Hospital | 4.23296e+006 | 834.8900 | 0.0346 | 7.6800e-003 | 838.0427 |
| Parking Lot | 49012.8 | 9.6671 | 4.0000e-004 | 9.0000e-005 | 9.7036 |
| **Total** | | **844.5571** | **0.0350** | **7.7700e-003** | **847.7463** |

# 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 | 1.0247 | 1.0000e-005 | 1.3200e-003 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.5700e-003 | 2.5700e-003 | 1.0000e-005 | 0.0000 | 2.7400e-003 |
| Unmitigated | 1.0247 | 1.0000e-005 | 1.3200e-003 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.5700e-003 | 2.5700e-003 | 1.0000e-005 | 0.0000 | 2.7400e-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 | 0.1175 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.9071 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 1.2000e-004 | 1.0000e-005 | 1.3200e-003 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.5700e-003 | 2.5700e-003 | 1.0000e-005 | 0.0000 | 2.7400e-003 |
| **Total** | **1.0247** | **1.0000e-005** | **1.3200e-003** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **2.5700e-003** | **2.5700e-003** | **1.0000e-005** | **0.0000** | **2.7400e-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 | 0.1175 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.9071 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 1.2000e-004 | 1.0000e-005 | 1.3200e-003 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 2.5700e-003 | 2.5700e-003 | 1.0000e-005 | 0.0000 | 2.7400e-003 |
| **Total** | **1.0247** | **1.0000e-005** | **1.3200e-003** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **2.5700e-003** | **2.5700e-003** | **1.0000e-005** | **0.0000** | **2.7400e-003** |

## 7.0 Water Detail

### 7.1 Mitigation Measures Water

Apply Water Conservation Strategy

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| Category | MT/yr | | | |
| Mitigated | 24.4810 | 0.2351 | 5.7300e-003 | 32.0654 |
| Unmitigated | 29.6641 | 0.2938 | 7.1600e-003 | 39.1410 |

## 7.2 Water by Land Use

**Unmitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Hospital | 8.98136 / 1.71074 | 29.6641 | 0.2938 | 7.1600e-003 | 39.1410 |
| Parking Lot | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **29.6641** | **0.2938** | **7.1600e-003** | **39.1410** |

### 7.2 Water by Land Use

**Mitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Hospital | 7.18509 / 1.71074 | 24.4810 | 0.2351 | 5.7300e-003 | 32.0654 |
| Parking Lot | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **24.4810** | **0.2351** | **5.7300e-003** | **32.0654** |

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

**Category/Year**

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| | MT/yr | | | |
| Mitigated | 59.2734 | 3.5030 | 0.0000 | 146.8472 |
| Unmitigated | 59.2734 | 3.5030 | 0.0000 | 146.8472 |

## 8.2 Waste by Land Use

**Unmitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Hospital | 292 | 59.2734 | 3.5030 | 0.0000 | 146.8472 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **59.2734** | **3.5030** | **0.0000** | **146.8472** |

**Mitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Hospital | 292 | 59.2734 | 3.5030 | 0.0000 | 146.8472 |
| Parking Lot | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | **59.2734** | **3.5030** | **0.0000** | **146.8472** |

## 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

# 9790 Inland Valley Medical Center - Existing Hospital to be Removed

**South Coast AQMD Air District, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| Hospital | 18.00 | Bed | 0.30 | 107,800.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 31 |
| **Climate Zone** | 10 | | | **Operational Year** | 2026 |
| **Utility Company** | Southern California Edison | | | | |
| **CO2 Intensity (lb/MWhr)** | 434.83 | **CH4 Intensity (lb/MWhr)** | 0.018 | **N2O Intensity (lb/MWhr)** | 0.004 |

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

Project Characteristics - Intensity factors adjusted to relfect So Cal Edison RPS procurement

Land Use - Building C - 12,800 sf
Buildings B-H - 95,000 sf
107,800 sf

Construction Phase - Existing use - no construction

Off-road Equipment -

Trips and VMT -

Demolition -

Grading -

Vehicle Trips - 22.32 trips/weekday
Default trip length

Energy Use -

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblLandUse | LandUseSquareFeet | 12,883.64 | 107,800.00 |
| tblProjectCharacteristics | CH4IntensityFactor | 0.029 | 0.018 |
| tblProjectCharacteristics | CO2IntensityFactor | 702.44 | 434.83 |
| tblProjectCharacteristics | N2OIntensityFactor | 0.006 | 0.004 |
| tblVehicleTrips | ST_TR | 8.14 | 14.04 |
| tblVehicleTrips | SU_TR | 7.19 | 12.40 |
| tblVehicleTrips | WD_TR | 12.94 | 22.32 |

## 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 | 0.0188 | 0.1824 | 0.1604 | 3.2000e-004 | 7.6700e-003 | 9.3900e-003 | 0.0171 | 2.2400e-003 | 8.7400e-003 | 0.0110 | 0.0000 | 28.7578 | 28.7578 | 5.6900e-003 | 0.0000 | 28.9000 |
| 2021 | 0.5392 | 0.3945 | 0.3632 | 7.9000e-004 | 0.0196 | 0.0184 | 0.0380 | 5.3000e-003 | 0.0169 | 0.0222 | 0.0000 | 71.0248 | 71.0248 | 0.0144 | 0.0000 | 71.3858 |
| **Maximum** | **0.5392** | **0.3945** | **0.3632** | **7.9000e-004** | **0.0196** | **0.0184** | **0.0380** | **5.3000e-003** | **0.0169** | **0.0222** | **0.0000** | **71.0248** | **71.0248** | **0.0144** | **0.0000** | **71.3858** |

### 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 | 0.0188 | 0.1824 | 0.1604 | 3.2000e-004 | 7.6700e-003 | 9.3900e-003 | 0.0171 | 2.2400e-003 | 8.7400e-003 | 0.0110 | 0.0000 | 28.7578 | 28.7578 | 5.6900e-003 | 0.0000 | 28.9000 |
| 2021 | 0.5392 | 0.3945 | 0.3632 | 7.9000e-004 | 0.0196 | 0.0184 | 0.0380 | 5.3000e-003 | 0.0169 | 0.0222 | 0.0000 | 71.0248 | 71.0248 | 0.0144 | 0.0000 | 71.3858 |
| **Maximum** | **0.5392** | **0.3945** | **0.3632** | **7.9000e-004** | **0.0196** | **0.0184** | **0.0380** | **5.3000e-003** | **0.0169** | **0.0222** | **0.0000** | **71.0248** | **71.0248** | **0.0144** | **0.0000** | **71.3858** |

| | ROG | NOx | 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 | 11-11-2020 | 2-10-2021 | 0.3568 | 0.3568 |
| 2 | 2-11-2021 | 5-10-2021 | 0.7734 | 0.7734 |
| | | Highest | 0.7734 | 0.7734 |

## 2.2 Overall Operational

### Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 0.4395 | 0.0000 | 2.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 4.5000e-004 | 4.5000e-004 | 0.0000 | 0.0000 | 4.8000e-004 |
| Energy | 0.0484 | 0.4400 | 0.3696 | 2.6400e-003 | | 0.0334 | 0.0334 | | 0.0334 | 0.0334 | 0.0000 | 908.3002 | 908.3002 | 0.0270 | 0.0127 | 912.7678 |
| Mobile | 0.0870 | 0.4556 | 1.2335 | 5.5000e-003 | 0.5228 | 3.8900e-003 | 0.5267 | 0.1401 | 3.6100e-003 | 0.1437 | 0.0000 | 509.9648 | 509.9648 | 0.0213 | 0.0000 | 510.4960 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 10.6692 | 0.0000 | 10.6692 | 0.6305 | 0.0000 | 26.4325 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.5129 | 4.8266 | 5.3395 | 0.0529 | 1.2900e-003 | 7.0454 |
| **Total** | **0.5749** | **0.8956** | **1.6033** | **8.1400e-003** | **0.5228** | **0.0373** | **0.5601** | **0.1401** | **0.0371** | **0.1771** | **11.1821** | **1,423.0921** | **1,434.2742** | **0.7316** | **0.0140** | **1,456.7422** |

## 2.2 Overall Operational

**Mitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 0.4395 | 0.0000 | 2.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 4.5000e-004 | 4.5000e-004 | 0.0000 | 0.0000 | 4.8000e-004 |
| Energy | 0.0484 | 0.4400 | 0.3696 | 2.6400e-003 | | 0.0334 | 0.0334 | | 0.0334 | 0.0334 | 0.0000 | 908.3002 | 908.3002 | 0.0270 | 0.0127 | 912.7678 |
| Mobile | 0.0870 | 0.4556 | 1.2335 | 5.5000e-003 | 0.5228 | 3.8900e-003 | 0.5267 | 0.1401 | 3.6100e-003 | 0.1437 | 0.0000 | 509.9648 | 509.9648 | 0.0213 | 0.0000 | 510.4960 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 10.6692 | 0.0000 | 10.6692 | 0.6305 | 0.0000 | 26.4325 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.5129 | 4.8266 | 5.3395 | 0.0529 | 1.2900e-003 | 7.0454 |
| **Total** | **0.5749** | **0.8956** | **1.6033** | **8.1400e-003** | **0.5228** | **0.0373** | **0.5601** | **0.1401** | **0.0371** | **0.1771** | **11.1821** | **1,423.0921** | **1,434.2742** | **0.7316** | **0.0140** | **1,456.7422** |

| | ROG | NOx | 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**

9790 Inland Valley Medical Center - Existing Hospital to be Removed - South Coast AQMD Air District, Annual

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Demolition | Demolition | 11/11/2020 | 11/24/2020 | 5 | 10 | |
| 2 | Site Preparation | Site Preparation | 11/25/2020 | 11/25/2020 | 5 | 1 | |
| 3 | Grading | Grading | 11/26/2020 | 11/27/2020 | 5 | 2 | |
| 4 | Building Construction | Building Construction | 11/28/2020 | 4/16/2021 | 5 | 100 | |
| 5 | Paving | Paving | 4/17/2021 | 4/23/2021 | 5 | 5 | |
| 6 | Architectural Coating | Architectural Coating | 4/24/2021 | 4/30/2021 | 5 | 5 | |

**Acres of Grading (Site Preparation Phase): 0.5**

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

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 161,700; Non-Residential Outdoor: 53,900; 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 | 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 | 10.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Site Preparation | 2 | 5.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 4 | 10.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 5 | 35.00 | 18.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 7 | 18.00 | 0.00 | 0.00 | 14.70 | 6.90 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Architectural Coating | 1 | 7.00 | 0.00 | 0.00 | 14.70 | 6.90 | 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 | 4.3400e-003 | 0.0394 | 0.0381 | 6.0000e-005 | | 2.3400e-003 | 2.3400e-003 | | 2.2300e-003 | 2.2300e-003 | 0.0000 | 5.2038 | 5.2038 | 9.8000e-004 | 0.0000 | 5.2284 |
| **Total** | **4.3400e-003** | **0.0394** | **0.0381** | **6.0000e-005** | | **2.3400e-003** | **2.3400e-003** | | **2.2300e-003** | **2.2300e-003** | **0.0000** | **5.2038** | **5.2038** | **9.8000e-004** | **0.0000** | **5.2284** |

## 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 | 2.2000e-004 | 1.7000e-004 | 1.8900e-003 | 1.0000e-005 | 5.5000e-004 | 0.0000 | 5.5000e-004 | 1.5000e-004 | 0.0000 | 1.5000e-004 | 0.0000 | 0.4938 | 0.4938 | 1.0000e-005 | 0.0000 | 0.4942 |
| **Total** | **2.2000e-004** | **1.7000e-004** | **1.8900e-003** | **1.0000e-005** | **5.5000e-004** | **0.0000** | **5.5000e-004** | **1.5000e-004** | **0.0000** | **1.5000e-004** | **0.0000** | **0.4938** | **0.4938** | **1.0000e-005** | **0.0000** | **0.4942** |

### 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 | 4.3400e-003 | 0.0394 | 0.0381 | 6.0000e-005 | | 2.3400e-003 | 2.3400e-003 | | 2.2300e-003 | 2.2300e-003 | 0.0000 | 5.2038 | 5.2038 | 9.8000e-004 | 0.0000 | 5.2284 |
| **Total** | **4.3400e-003** | **0.0394** | **0.0381** | **6.0000e-005** | | **2.3400e-003** | **2.3400e-003** | | **2.2300e-003** | **2.2300e-003** | **0.0000** | **5.2038** | **5.2038** | **9.8000e-004** | **0.0000** | **5.2284** |

## 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 | 2.2000e-004 | 1.7000e-004 | 1.8900e-003 | 1.0000e-005 | 5.5000e-004 | 0.0000 | 5.5000e-004 | 1.5000e-004 | 0.0000 | 1.5000e-004 | 0.0000 | 0.4938 | 0.4938 | 1.0000e-005 | 0.0000 | 0.4942 |
| **Total** | **2.2000e-004** | **1.7000e-004** | **1.8900e-003** | **1.0000e-005** | **5.5000e-004** | **0.0000** | **5.5000e-004** | **1.5000e-004** | **0.0000** | **1.5000e-004** | **0.0000** | **0.4938** | **0.4938** | **1.0000e-005** | **0.0000** | **0.4942** |

## 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 | | | | | 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 | 3.4000e-004 | 4.2200e-003 | 2.0500e-003 | 0.0000 | | 1.7000e-004 | 1.7000e-004 | | 1.5000e-004 | 1.5000e-004 | 0.0000 | 0.4280 | 0.4280 | 1.4000e-004 | 0.0000 | 0.4314 |
| **Total** | **3.4000e-004** | **4.2200e-003** | **2.0500e-003** | **0.0000** | **2.7000e-004** | **1.7000e-004** | **4.4000e-004** | **3.0000e-005** | **1.5000e-004** | **1.8000e-004** | **0.0000** | **0.4280** | **0.4280** | **1.4000e-004** | **0.0000** | **0.4314** |

## 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 | 1.0000e-005 | 1.0000e-005 | 9.0000e-005 | 0.0000 | 3.0000e-005 | 0.0000 | 3.0000e-005 | 1.0000e-005 | 0.0000 | 1.0000e-005 | 0.0000 | 0.0247 | 0.0247 | 0.0000 | 0.0000 | 0.0247 |
| **Total** | **1.0000e-005** | **1.0000e-005** | **9.0000e-005** | **0.0000** | **3.0000e-005** | **0.0000** | **3.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **0.0000** | **0.0247** | **0.0247** | **0.0000** | **0.0000** | **0.0247** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 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 | 3.4000e-004 | 4.2200e-003 | 2.0500e-003 | 0.0000 | | 1.7000e-004 | 1.7000e-004 | | 1.5000e-004 | 1.5000e-004 | 0.0000 | 0.4280 | 0.4280 | 1.4000e-004 | 0.0000 | 0.4314 |
| **Total** | **3.4000e-004** | **4.2200e-003** | **2.0500e-003** | **0.0000** | **2.7000e-004** | **1.7000e-004** | **4.4000e-004** | **3.0000e-005** | **1.5000e-004** | **1.8000e-004** | **0.0000** | **0.4280** | **0.4280** | **1.4000e-004** | **0.0000** | **0.4314** |

## 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 | 1.0000e-005 | 1.0000e-005 | 9.0000e-005 | 0.0000 | 3.0000e-005 | 0.0000 | 3.0000e-005 | 1.0000e-005 | 0.0000 | 1.0000e-005 | 0.0000 | 0.0247 | 0.0247 | 0.0000 | 0.0000 | 0.0247 |
| **Total** | **1.0000e-005** | **1.0000e-005** | **9.0000e-005** | **0.0000** | **3.0000e-005** | **0.0000** | **3.0000e-005** | **1.0000e-005** | **0.0000** | **1.0000e-005** | **0.0000** | **0.0247** | **0.0247** | **0.0000** | **0.0000** | **0.0247** |

## 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 | | | | | 7.5000e-004 | 0.0000 | 7.5000e-004 | 4.1000e-004 | 0.0000 | 4.1000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 8.7000e-004 | 7.8700e-003 | 7.6200e-003 | 1.0000e-005 | | 4.7000e-004 | 4.7000e-004 | | 4.5000e-004 | 4.5000e-004 | 0.0000 | 1.0408 | 1.0408 | 2.0000e-004 | 0.0000 | 1.0457 |
| **Total** | **8.7000e-004** | **7.8700e-003** | **7.6200e-003** | **1.0000e-005** | **7.5000e-004** | **4.7000e-004** | **1.2200e-003** | **4.1000e-004** | **4.5000e-004** | **8.6000e-004** | **0.0000** | **1.0408** | **1.0408** | **2.0000e-004** | **0.0000** | **1.0457** |

## 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 | 4.0000e-005 | 3.0000e-005 | 3.8000e-004 | 0.0000 | 1.1000e-004 | 0.0000 | 1.1000e-004 | 3.0000e-005 | 0.0000 | 3.0000e-005 | 0.0000 | 0.0988 | 0.0988 | 0.0000 | 0.0000 | 0.0988 |
| **Total** | **4.0000e-005** | **3.0000e-005** | **3.8000e-004** | **0.0000** | **1.1000e-004** | **0.0000** | **1.1000e-004** | **3.0000e-005** | **0.0000** | **3.0000e-005** | **0.0000** | **0.0988** | **0.0988** | **0.0000** | **0.0000** | **0.0988** |

### 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 | | | | | 7.5000e-004 | 0.0000 | 7.5000e-004 | 4.1000e-004 | 0.0000 | 4.1000e-004 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 8.7000e-004 | 7.8700e-003 | 7.6200e-003 | 1.0000e-005 | | 4.7000e-004 | 4.7000e-004 | | 4.5000e-004 | 4.5000e-004 | 0.0000 | 1.0408 | 1.0408 | 2.0000e-004 | 0.0000 | 1.0457 |
| **Total** | **8.7000e-004** | **7.8700e-003** | **7.6200e-003** | **1.0000e-005** | **7.5000e-004** | **4.7000e-004** | **1.2200e-003** | **4.1000e-004** | **4.5000e-004** | **8.6000e-004** | **0.0000** | **1.0408** | **1.0408** | **2.0000e-004** | **0.0000** | **1.0457** |

## 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 | 4.0000e-005 | 3.0000e-005 | 3.8000e-004 | 0.0000 | 1.1000e-004 | 0.0000 | 1.1000e-004 | 3.0000e-005 | 0.0000 | 3.0000e-005 | 0.0000 | 0.0988 | 0.0988 | 0.0000 | 0.0000 | 0.0988 |
| **Total** | **4.0000e-005** | **3.0000e-005** | **3.8000e-004** | **0.0000** | **1.1000e-004** | **0.0000** | **1.1000e-004** | **3.0000e-005** | **0.0000** | **3.0000e-005** | **0.0000** | **0.0988** | **0.0988** | **0.0000** | **0.0000** | **0.0988** |

## 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 | 0.0103 | 0.1062 | 0.0887 | 1.4000e-004 | | 6.2700e-003 | 6.2700e-003 | | 5.7700e-003 | 5.7700e-003 | 0.0000 | 12.0073 | 12.0073 | 3.8800e-003 | 0.0000 | 12.1043 |
| **Total** | **0.0103** | **0.1062** | **0.0887** | **1.4000e-004** | | **6.2700e-003** | **6.2700e-003** | | **5.7700e-003** | **5.7700e-003** | **0.0000** | **12.0073** | **12.0073** | **3.8800e-003** | **0.0000** | **12.1043** |

## 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 | 7.2000e-004 | 0.0231 | 5.7100e-003 | 5.0000e-005 | 1.3600e-003 | 1.1000e-004 | 1.4700e-003 | 3.9000e-004 | 1.1000e-004 | 5.0000e-004 | 0.0000 | 5.3126 | 5.3126 | 3.5000e-004 | 0.0000 | 5.3213 |
| Worker | 1.8700e-003 | 1.4400e-003 | 0.0159 | 5.0000e-005 | 4.6100e-003 | 4.0000e-005 | 4.6400e-003 | 1.2200e-003 | 3.0000e-005 | 1.2600e-003 | 0.0000 | 4.1482 | 4.1482 | 1.2000e-004 | 0.0000 | 4.1512 |
| **Total** | **2.5900e-003** | **0.0245** | **0.0216** | **1.0000e-004** | **5.9700e-003** | **1.5000e-004** | **6.1100e-003** | **1.6100e-003** | **1.4000e-004** | **1.7600e-003** | **0.0000** | **9.4608** | **9.4608** | **4.7000e-004** | **0.0000** | **9.4725** |

### 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 | 0.0103 | 0.1062 | 0.0887 | 1.4000e-004 | | 6.2700e-003 | 6.2700e-003 | | 5.7700e-003 | 5.7700e-003 | 0.0000 | 12.0072 | 12.0072 | 3.8800e-003 | 0.0000 | 12.1043 |
| **Total** | **0.0103** | **0.1062** | **0.0887** | **1.4000e-004** | | **6.2700e-003** | **6.2700e-003** | | **5.7700e-003** | **5.7700e-003** | **0.0000** | **12.0072** | **12.0072** | **3.8800e-003** | **0.0000** | **12.1043** |

## 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 | 7.2000e-004 | 0.0231 | 5.7100e-003 | 5.0000e-005 | 1.3600e-003 | 1.1000e-004 | 1.4700e-003 | 3.9000e-004 | 1.1000e-004 | 5.0000e-004 | 0.0000 | 5.3126 | 5.3126 | 3.5000e-004 | 0.0000 | 5.3213 |
| Worker | 1.8700e-003 | 1.4400e-003 | 0.0159 | 5.0000e-005 | 4.6100e-003 | 4.0000e-005 | 4.6400e-003 | 1.2200e-003 | 3.0000e-005 | 1.2600e-003 | 0.0000 | 4.1482 | 4.1482 | 1.2000e-004 | 0.0000 | 4.1512 |
| **Total** | **2.5900e-003** | **0.0245** | **0.0216** | **1.0000e-004** | **5.9700e-003** | **1.5000e-004** | **6.1100e-003** | **1.6100e-003** | **1.4000e-004** | **1.7600e-003** | **0.0000** | **9.4608** | **9.4608** | **4.7000e-004** | **0.0000** | **9.4725** |

## 3.5 Building Construction - 2021

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0295 | 0.3034 | 0.2760 | 4.3000e-004 | | 0.0170 | 0.0170 | | 0.0157 | 0.0157 | 0.0000 | 38.0312 | 38.0312 | 0.0123 | 0.0000 | 38.3387 |
| **Total** | **0.0295** | **0.3034** | **0.2760** | **4.3000e-004** | | **0.0170** | **0.0170** | | **0.0157** | **0.0157** | **0.0000** | **38.0312** | **38.0312** | **0.0123** | **0.0000** | **38.3387** |

## 3.5 Building Construction - 2021

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 1.9500e-003 | 0.0662 | 0.0164 | 1.7000e-004 | 4.3100e-003 | 1.3000e-004 | 4.4400e-003 | 1.2400e-003 | 1.3000e-004 | 1.3700e-003 | 0.0000 | 16.6996 | 16.6996 | 1.0600e-003 | 0.0000 | 16.7260 |
| Worker | 5.5400e-003 | 4.1000e-003 | 0.0464 | 1.4000e-004 | 0.0146 | 1.1000e-004 | 0.0147 | 3.8800e-003 | 1.0000e-004 | 3.9800e-003 | 0.0000 | 12.7103 | 12.7103 | 3.4000e-004 | 0.0000 | 12.7188 |
| **Total** | **7.4900e-003** | **0.0703** | **0.0628** | **3.1000e-004** | **0.0189** | **2.4000e-004** | **0.0191** | **5.1200e-003** | **2.3000e-004** | **5.3500e-003** | **0.0000** | **29.4099** | **29.4099** | **1.4000e-003** | **0.0000** | **29.4448** |

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0295 | 0.3034 | 0.2760 | 4.3000e-004 | | 0.0170 | 0.0170 | | 0.0157 | 0.0157 | 0.0000 | 38.0311 | 38.0311 | 0.0123 | 0.0000 | 38.3386 |
| **Total** | **0.0295** | **0.3034** | **0.2760** | **4.3000e-004** | | **0.0170** | **0.0170** | | **0.0157** | **0.0157** | **0.0000** | **38.0311** | **38.0311** | **0.0123** | **0.0000** | **38.3386** |

## 3.5 Building Construction - 2021

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 1.9500e-003 | 0.0662 | 0.0164 | 1.7000e-004 | 4.3100e-003 | 1.3000e-004 | 4.4400e-003 | 1.2400e-003 | 1.3000e-004 | 1.3700e-003 | 0.0000 | 16.6996 | 16.6996 | 1.0600e-003 | 0.0000 | 16.7260 |
| Worker | 5.5400e-003 | 4.1000e-003 | 0.0464 | 1.4000e-004 | 0.0146 | 1.1000e-004 | 0.0147 | 3.8800e-003 | 1.0000e-004 | 3.9800e-003 | 0.0000 | 12.7103 | 12.7103 | 3.4000e-004 | 0.0000 | 12.7188 |
| **Total** | **7.4900e-003** | **0.0703** | **0.0628** | **3.1000e-004** | **0.0189** | **2.4000e-004** | **0.0191** | **5.1200e-003** | **2.3000e-004** | **5.3500e-003** | **0.0000** | **29.4099** | **29.4099** | **1.4000e-003** | **0.0000** | **29.4448** |

## 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 | 1.8000e-003 | 0.0168 | 0.0177 | 3.0000e-005 | | 8.8000e-004 | 8.8000e-004 | | 8.2000e-004 | 8.2000e-004 | 0.0000 | 2.3481 | 2.3481 | 6.8000e-004 | 0.0000 | 2.3652 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **1.8000e-003** | **0.0168** | **0.0177** | **3.0000e-005** | | **8.8000e-004** | **8.8000e-004** | | **8.2000e-004** | **8.2000e-004** | **0.0000** | **2.3481** | **2.3481** | **6.8000e-004** | **0.0000** | **2.3652** |

## 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 | 1.9000e-004 | 1.4000e-004 | 1.5700e-003 | 0.0000 | 4.9000e-004 | 0.0000 | 5.0000e-004 | 1.3000e-004 | 0.0000 | 1.3000e-004 | 0.0000 | 0.4301 | 0.4301 | 1.0000e-005 | 0.0000 | 0.4303 |
| **Total** | **1.9000e-004** | **1.4000e-004** | **1.5700e-003** | **0.0000** | **4.9000e-004** | **0.0000** | **5.0000e-004** | **1.3000e-004** | **0.0000** | **1.3000e-004** | **0.0000** | **0.4301** | **0.4301** | **1.0000e-005** | **0.0000** | **0.4303** |

### 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 | 1.8000e-003 | 0.0168 | 0.0177 | 3.0000e-005 | | 8.8000e-004 | 8.8000e-004 | | 8.2000e-004 | 8.2000e-004 | 0.0000 | 2.3481 | 2.3481 | 6.8000e-004 | 0.0000 | 2.3652 |
| Paving | 0.0000 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **1.8000e-003** | **0.0168** | **0.0177** | **3.0000e-005** | | **8.8000e-004** | **8.8000e-004** | | **8.2000e-004** | **8.2000e-004** | **0.0000** | **2.3481** | **2.3481** | **6.8000e-004** | **0.0000** | **2.3652** |

## 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 | 1.9000e-004 | 1.4000e-004 | 1.5700e-003 | 0.0000 | 4.9000e-004 | 0.0000 | 5.0000e-004 | 1.3000e-004 | 0.0000 | 1.3000e-004 | 0.0000 | 0.4301 | 0.4301 | 1.0000e-005 | 0.0000 | 0.4303 |
| **Total** | **1.9000e-004** | **1.4000e-004** | **1.5700e-003** | **0.0000** | **4.9000e-004** | **0.0000** | **5.0000e-004** | **1.3000e-004** | **0.0000** | **1.3000e-004** | **0.0000** | **0.4301** | **0.4301** | **1.0000e-005** | **0.0000** | **0.4303** |

## 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 | 0.4997 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 5.5000e-004 | 3.8200e-003 | 4.5400e-003 | 1.0000e-005 | | 2.4000e-004 | 2.4000e-004 | | 2.4000e-004 | 2.4000e-004 | 0.0000 | 0.6383 | 0.6383 | 4.0000e-005 | 0.0000 | 0.6394 |
| **Total** | **0.5002** | **3.8200e-003** | **4.5400e-003** | **1.0000e-005** | | **2.4000e-004** | **2.4000e-004** | | **2.4000e-004** | **2.4000e-004** | **0.0000** | **0.6383** | **0.6383** | **4.0000e-005** | **0.0000** | **0.6394** |

## 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 | 7.0000e-005 | 5.0000e-005 | 6.1000e-004 | 0.0000 | 1.9000e-004 | 0.0000 | 1.9000e-004 | 5.0000e-005 | 0.0000 | 5.0000e-005 | 0.0000 | 0.1672 | 0.1672 | 0.0000 | 0.0000 | 0.1674 |
| **Total** | **7.0000e-005** | **5.0000e-005** | **6.1000e-004** | **0.0000** | **1.9000e-004** | **0.0000** | **1.9000e-004** | **5.0000e-005** | **0.0000** | **5.0000e-005** | **0.0000** | **0.1672** | **0.1672** | **0.0000** | **0.0000** | **0.1674** |

### 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 | 0.4997 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 5.5000e-004 | 3.8200e-003 | 4.5400e-003 | 1.0000e-005 | | 2.4000e-004 | 2.4000e-004 | | 2.4000e-004 | 2.4000e-004 | 0.0000 | 0.6383 | 0.6383 | 4.0000e-005 | 0.0000 | 0.6394 |
| **Total** | **0.5002** | **3.8200e-003** | **4.5400e-003** | **1.0000e-005** | | **2.4000e-004** | **2.4000e-004** | | **2.4000e-004** | **2.4000e-004** | **0.0000** | **0.6383** | **0.6383** | **4.0000e-005** | **0.0000** | **0.6394** |

### 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 | 7.0000e-005 | 5.0000e-005 | 6.1000e-004 | 0.0000 | 1.9000e-004 | 0.0000 | 1.9000e-004 | 5.0000e-005 | 0.0000 | 5.0000e-005 | 0.0000 | 0.1672 | 0.1672 | 0.0000 | 0.0000 | 0.1674 |
| **Total** | **7.0000e-005** | **5.0000e-005** | **6.1000e-004** | **0.0000** | **1.9000e-004** | **0.0000** | **1.9000e-004** | **5.0000e-005** | **0.0000** | **5.0000e-005** | **0.0000** | **0.1672** | **0.1672** | **0.0000** | **0.0000** | **0.1674** |

## 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 | 0.0870 | 0.4556 | 1.2335 | 5.5000e-003 | 0.5228 | 3.8900e-003 | 0.5267 | 0.1401 | 3.6100e-003 | 0.1437 | 0.0000 | 509.9648 | 509.9648 | 0.0213 | 0.0000 | 510.4960 |
| Unmitigated | 0.0870 | 0.4556 | 1.2335 | 5.5000e-003 | 0.5228 | 3.8900e-003 | 0.5267 | 0.1401 | 3.6100e-003 | 0.1437 | 0.0000 | 509.9648 | 509.9648 | 0.0213 | 0.0000 | 510.4960 |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| Hospital | 401.76 | 252.72 | 223.20 | 1,376,124 | 1,376,124 |
| Total | 401.76 | 252.72 | 223.20 | 1,376,124 | 1,376,124 |

## 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 |
| Hospital | 16.60 | 8.40 | 6.90 | 64.90 | 16.10 | 19.00 | 73 | 25 | 2 |

## 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hospital | 0.551582 | 0.041972 | 0.204917 | 0.113538 | 0.013798 | 0.005777 | 0.022002 | 0.036198 | 0.002156 | 0.001623 | 0.004914 | 0.000716 | 0.000809 |

# 5.0 Energy Detail

Historical Energy Use: Y

## 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 | 429.2797 | 429.2797 | 0.0178 | 3.9500e-003 | 430.9007 |
| Electricity Unmitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 429.2797 | 429.2797 | 0.0178 | 3.9500e-003 | 430.9007 |
| NaturalGas Mitigated | 0.0484 | 0.4400 | 0.3696 | 2.6400e-003 | | 0.0334 | 0.0334 | | 0.0334 | 0.0334 | 0.0000 | 479.0205 | 479.0205 | 9.1800e-003 | 8.7800e-003 | 481.8671 |
| NaturalGas Unmitigated | 0.0484 | 0.4400 | 0.3696 | 2.6400e-003 | | 0.0334 | 0.0334 | | 0.0334 | 0.0334 | 0.0000 | 479.0205 | 479.0205 | 9.1800e-003 | 8.7800e-003 | 481.8671 |

## 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 | | | | | |
| Hospital | 8.97651e+006 | 0.0484 | 0.4400 | 0.3696 | 2.6400e-003 | | 0.0334 | 0.0334 | | 0.0334 | 0.0334 | 0.0000 | 479.0205 | 479.0205 | 9.1800e-003 | 8.7800e-003 | 481.8671 |
| **Total** | | **0.0484** | **0.4400** | **0.3696** | **2.6400e-003** | | **0.0334** | **0.0334** | | **0.0334** | **0.0334** | **0.0000** | **479.0205** | **479.0205** | **9.1800e-003** | **8.7800e-003** | **481.8671** |

## 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 | | | | | |
| Hospital | 8.97651e+006 | 0.0484 | 0.4400 | 0.3696 | 2.6400e-003 | | 0.0334 | 0.0334 | | 0.0334 | 0.0334 | 0.0000 | 479.0205 | 479.0205 | 9.1800e-003 | 8.7800e-003 | 481.8671 |
| **Total** | | **0.0484** | **0.4400** | **0.3696** | **2.6400e-003** | | **0.0334** | **0.0334** | | **0.0334** | **0.0334** | **0.0000** | **479.0205** | **479.0205** | **9.1800e-003** | **8.7800e-003** | **481.8671** |

## 5.3 Energy by Land Use - Electricity

**Unmitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Hospital | 2.17648e+006 | 429.2797 | 0.0178 | 3.9500e-003 | 430.9007 |
| **Total** | | **429.2797** | **0.0178** | **3.9500e-003** | **430.9007** |

### 5.3 Energy by Land Use - Electricity

**Mitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| Hospital | 2.17648e+006 | 429.2797 | 0.0178 | 3.9500e-003 | 430.9007 |
| **Total** | | **429.2797** | **0.0178** | **3.9500e-003** | **430.9007** |

## 6.0 Area Detail

### 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 0.4395 | 0.0000 | 2.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 4.5000e-004 | 4.5000e-004 | 0.0000 | 0.0000 | 4.8000e-004 |
| Unmitigated | 0.4395 | 0.0000 | 2.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 4.5000e-004 | 4.5000e-004 | 0.0000 | 0.0000 | 4.8000e-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 | 0.0500 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.3895 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 2.0000e-005 | 0.0000 | 2.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 4.5000e-004 | 4.5000e-004 | 0.0000 | 0.0000 | 4.8000e-004 |
| **Total** | **0.4395** | **0.0000** | **2.3000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **4.5000e-004** | **4.5000e-004** | **0.0000** | **0.0000** | **4.8000e-004** |

**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 | 0.0500 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 0.3895 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 2.0000e-005 | 0.0000 | 2.3000e-004 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 4.5000e-004 | 4.5000e-004 | 0.0000 | 0.0000 | 4.8000e-004 |
| **Total** | **0.4395** | **0.0000** | **2.3000e-004** | **0.0000** | | **0.0000** | **0.0000** | | **0.0000** | **0.0000** | **0.0000** | **4.5000e-004** | **4.5000e-004** | **0.0000** | **0.0000** | **4.8000e-004** |

## 7.0 Water Detail

## 7.1 Mitigation Measures Water

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| Category | MT/yr | | | |
| Mitigated | 5.3395 | 0.0529 | 1.2900e-003 | 7.0454 |
| Unmitigated | 5.3395 | 0.0529 | 1.2900e-003 | 7.0454 |

## 7.2 Water by Land Use

**Unmitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Hospital | 1.61665 / 0.307933 | 5.3395 | 0.0529 | 1.2900e-003 | 7.0454 |
| **Total** | | **5.3395** | **0.0529** | **1.2900e-003** | **7.0454** |

### 7.2 Water by Land Use

**Mitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| Hospital | 1.61665 / 0.307933 | 5.3395 | 0.0529 | 1.2900e-003 | 7.0454 |
| **Total** | | **5.3395** | **0.0529** | **1.2900e-003** | **7.0454** |

## 8.0 Waste Detail

### 8.1 Mitigation Measures Waste

**Category/Year**

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| | MT/yr | | | |
| Mitigated | 10.6692 | 0.6305 | 0.0000 | 26.4325 |
| Unmitigated | 10.6692 | 0.6305 | 0.0000 | 26.4325 |

## 8.2 Waste by Land Use

**Unmitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Hospital | 52.56 | 10.6692 | 0.6305 | 0.0000 | 26.4325 |
| **Total** | | **10.6692** | **0.6305** | **0.0000** | **26.4325** |

**Mitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| Hospital | 52.56 | 10.6692 | 0.6305 | 0.0000 | 26.4325 |
| **Total** | | **10.6692** | **0.6305** | **0.0000** | **26.4325** |

## 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