TECHNICAL MEMORANDUM

To:	Steven Berzansky, Steven Walker Communities
From:	Jin Choi and Ryan Chiene, Kimley-Horn and Associates, Inc.
Date:	February 4, 2025
Subject:	Updated Site Plan Evaluation, Riverside, CA – Air Quality and Greenhouse Gas Analysis

---

Purpose and Background

The purpose of this memorandum is to evaluate impacts from air pollutant and greenhouse gas (GHG) emissions as a result of the updated site plan for the Arlington and Monroe Gas Station and Convenience Store Project (Project), located in the City of Riverside, California.

The Project consists of a 4,650 square-foot (sf) convenience store with 12 vehicle fueling positions. The updated site plan proposes a change to the convenience store from 4,740 square feet (sf) to 4,650 sf and rotating the building by 90 degrees. The previous site plan is presented in Attachment A: Previous Site Plan, and the updated site plan is presented in Attachment B: Updated Site Plan.

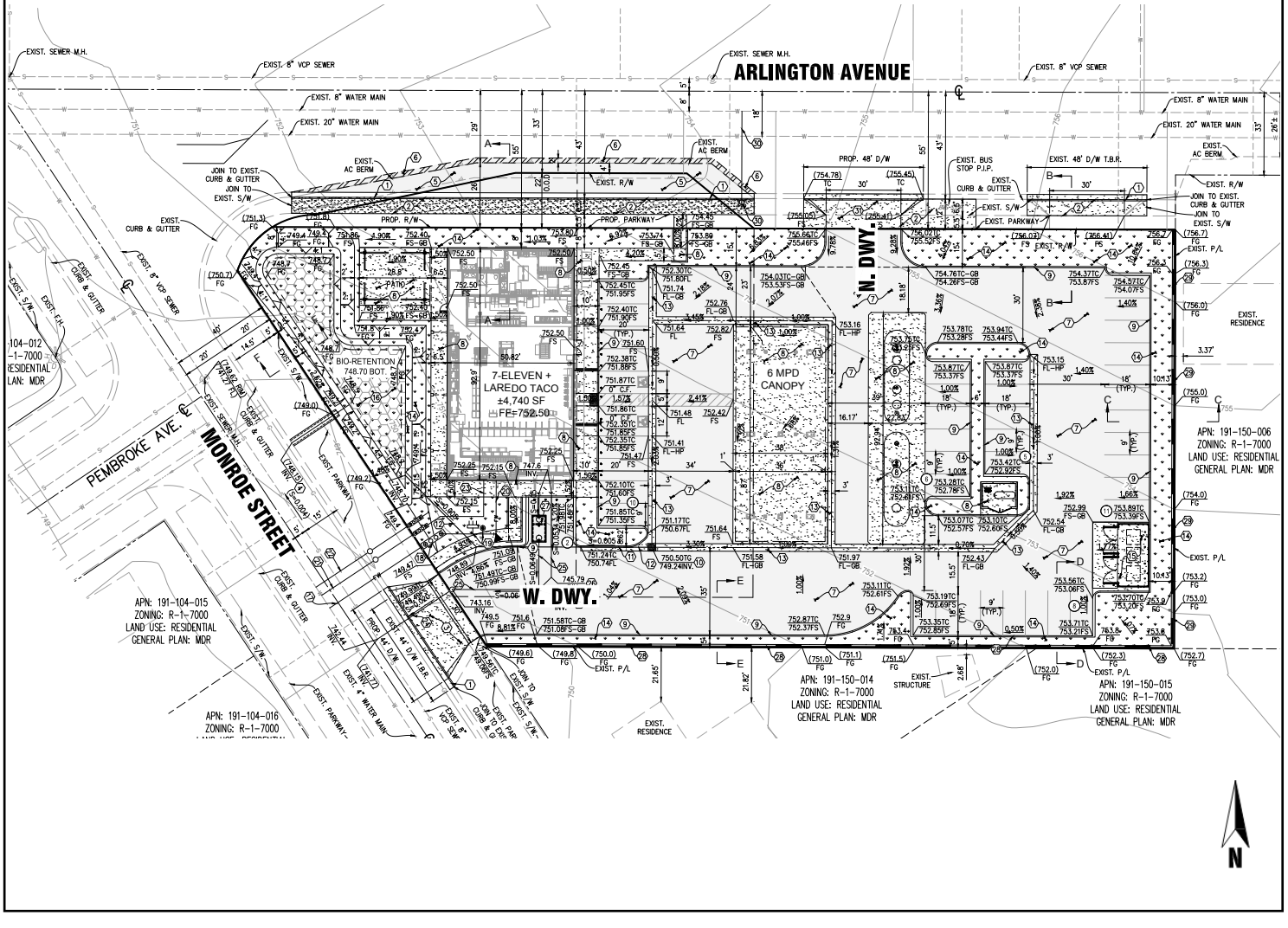
Air Quality and Greenhouse Gas Emissions Evaluation

Kimley-Horn prepared the air quality and GHG assessments in January 2021, analyzing Project impacts from construction and operational air pollutant and GHG emissions. As discussed in the air quality and GHG assessments, Project impacts from air quality and GHG emissions would not exceed South Coast Air Quality Management District (SCAQMD) thresholds and/or conflict with applicable air quality/GHG emissions reduction plans. Thus, impacts were considered less than significant, and no mitigation measures were required.

The decrease in convenience storage square footage and change in building orientation would not result in significant air quality and/or GHG impacts since the uses and trip generation have not changed. Thus, the existing air quality and GHG assessments are still applicable to the updated site plan. Therefore, Project implementation would not result in significant air quality and GHG impacts, and no mitigation measures would be required.

ATTACHMENT A

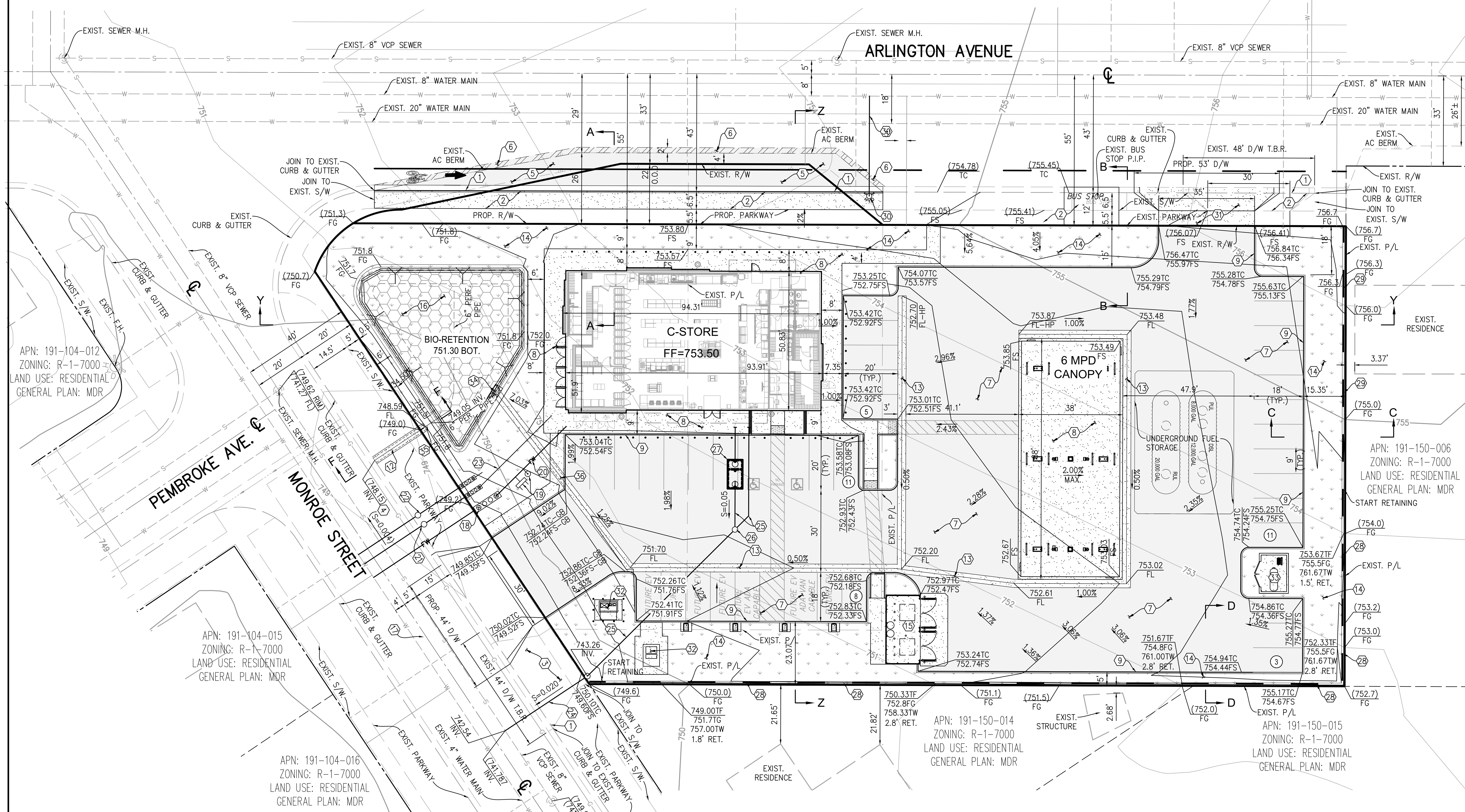
PREVIOUS SITE PLAN

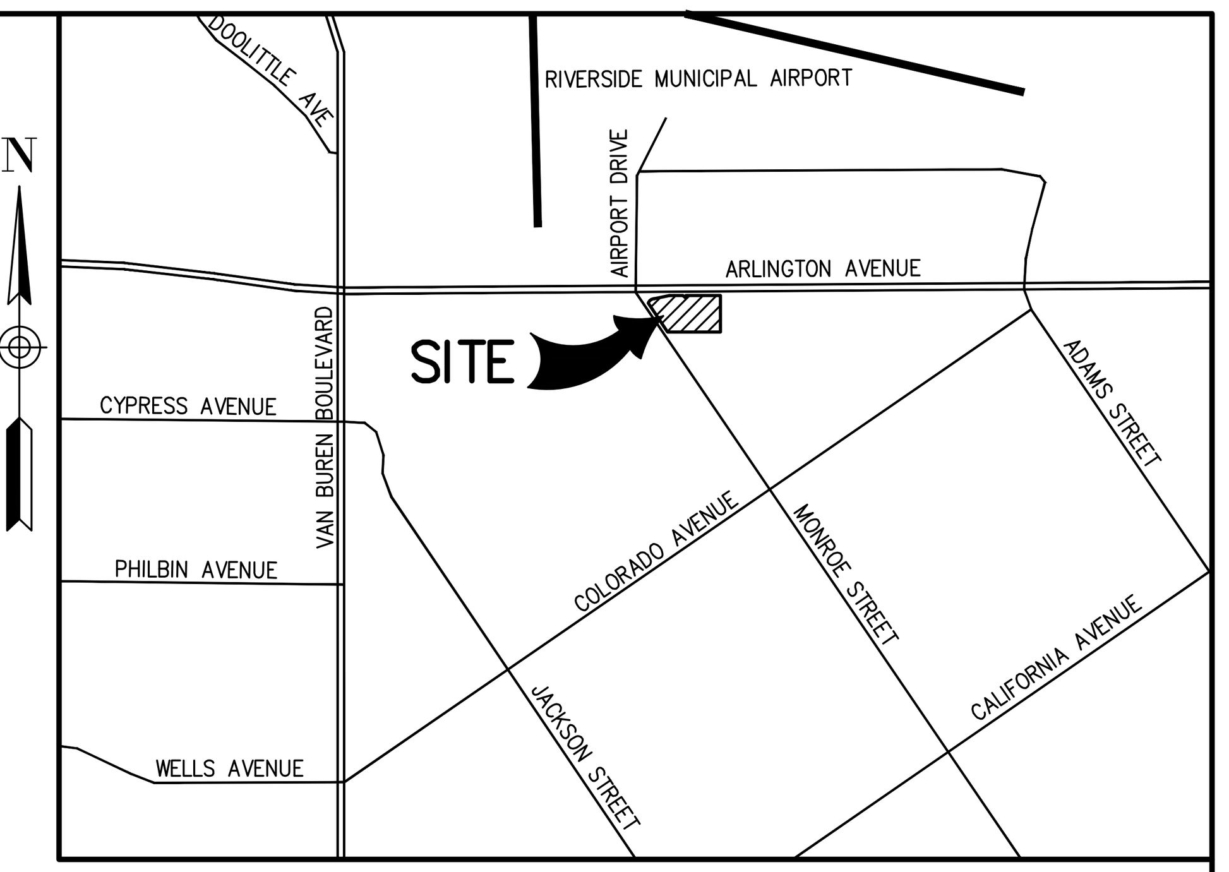

ARLINGTON AVENUE
MONROE STREET
PEMBROKE AVE.
N. DWY.
W. DWY.
7-ELEVEN + LAREDO TACO ±4,740 SF FF=752.50
6 MPD CANOPY
BIO-RETENTION 748.70 BOT.
APN: 191-104-015 ZONING: R-1-7000 LAND USE: RESIDENTIAL GENERAL PLAN: MDR
APN: 191-104-016 ZONING: R-1-7000
APN: 191-150-006 ZONING: R-1-7000 LAND USE: RESIDENTIAL GENERAL PLAN: MDR
APN: 191-150-014 ZONING: R-1-7000 LAND USE: RESIDENTIAL GENERAL PLAN: MDR
APN: 191-150-015 ZONING: R-1-7000 LAND USE: RESIDENTIAL GENERAL PLAN: MDR
EXIST. RESIDENCE
EXIST. STRUCTURE
EXIST. SEWER M.H.
EXIST. 8" VCP SEWER
EXIST. 8" WATER MAIN
EXIST. 20" WATER MAIN
EXIST. AC BERM
EXIST. CURB & GUTTER
EXIST. S/W
EXIST. R/W
EXIST. P/L
EXIST. BUS STOP P.I.P.
PROP. 48' D/W
EXIST. 48' D/W T.B.R.
PROP. R/W
PROP. PARKWAY
EXIST. PARKWAY
JOIN TO EXIST. CURB & GUTTER
JOIN TO EXIST. S/W
N

ATTACHMENT B

UPDATED SITE PLAN

CONCEPTUAL GRADING PLAN
6902, 6892, 6836 ARLINGTON AVENUE
RIVERSIDE, CALIFORNIA
FEBRUARY 2026





VICINITY MAP

THOMAS GUIDE – PAGE 714 GRID J-2 (2005 EDITION)
SECTION 6, TOWNSHIP 3 SOUTH, RANGE 5 WEST
NOT TO SCALE

OWNER/APPLICANT

STEVEN WALKER COMMUNITIES
7111 INDIANA AVENUE, SUITE 300
RIVERSIDE, CA. 92504
PH: (951) 784-0840

ENGINEER

WOODARD GROUP
1485 SPRUCE ST., STE.. "M"
RIVERSIDE, CA 92507
PH: (951) 907-5077
CONTACT: ANDREW C. WOODARD

TOPOGRAPHY SOURCE

EXISTING TOPOGRAPHY IS BASED ON CITY OF RIVERSIDE CADME DATABASE AND RECORD INFORMATION

LEGAL DESCRIPTION

APN: 191-150-003, 191-150-031, 191-150-032

THOSE PORTIONS OF LOT 5 IN BLOCK 4 OF THE LANDS OF THE RIVERSIDE LAND AND IRRIGATING CO., AS SHOWN BY MAP ON FILE IN BOOK 1, PAGE 70 THEREOF, OF MAPS, RECORDS OF SAN BERNARDINO COUNTY CALIFORNIA.

ASSESSOR PARCEL NO

BOOK	PAGE	PARCELS
191	150	031
191	150	032
191	150	033

ACREAGE

APN: 191-150-031 .... 0.70 ACRES
APN: 191-150-032 .... 0.27 ACRES
APN: 191-150-033 .... 0.37 ACRES
GROSS .... 1.34 ACRES
NET .... 1.28 ACRES
DISTURBED AREA .... 1.28 ACRES
OFFER OF DEDICATION .... 0.06 ACRES

ZONING/LAND USE/GENERAL PLAN

EXISTING ZONING (191-150-032, 191-150-033) R-1-7000
EXISTING ZONING (191-150-031) .... MU-V (MIXED USE-VILLAGE)
EXISTING LAND USE: .... VACANT
EXISTING GENERAL PLAN: ..... O (OFFICE) & MU-V (MIXED USE – VILLAGE)
PROPOSED ZONING: .... CR (COMMERCIAL RETAIL)
PROPOSED LAND USE: .... SERVICE STATION/RETAIL/RESTAURANT
PROPOSED GENERAL PLAN AMENDMENT: ..... MU-V (MIXED USE – VILLAGE)

UTILITY PROVIDERS

WATER: .... CITY OF RIVERSIDE
SEWER: .... CITY OF RIVERSIDE
ELECTRICITY: .... CITY OF RIVERSIDE
GAS: .... THE GAS COMPANY
TELEPHONE: .... VERIZON
TELEVISION: ....AIR WAVES / CHARTER COMMUNICATIONS

LEGEND

EXISTING PROPERTY LINE
PROPOSED RIGHT OF WAY
EXISTING RIGHT OF WAY
EXISTING CENTERLINE
PROPOSED CURB
EXISTING CURB
PROPOSED SIDEWALK
EXISTING SIDEWALK
EXISTING DIRT ROAD
PROPOSED PARKING STRIPE
EXISTING EASEMENT
EXISTING CONTOUR MAJOR
EXISTING CONTOUR MINOR
EXISTING FENCE
EXISTING BUILDING
EXISTING CONCRETE
12" SD — PROPOSED UNDERGROUND UTILITY
12" SD — EXISTING UNDERGROUND UTILITY
EXISTING EDGE OF PAVEMENT
PROPOSED EDGE OF PAVEMENT
915 — EXISTING CONTOUR ELEVATION
×901.5 — EXISTING SPOT ELEVATION

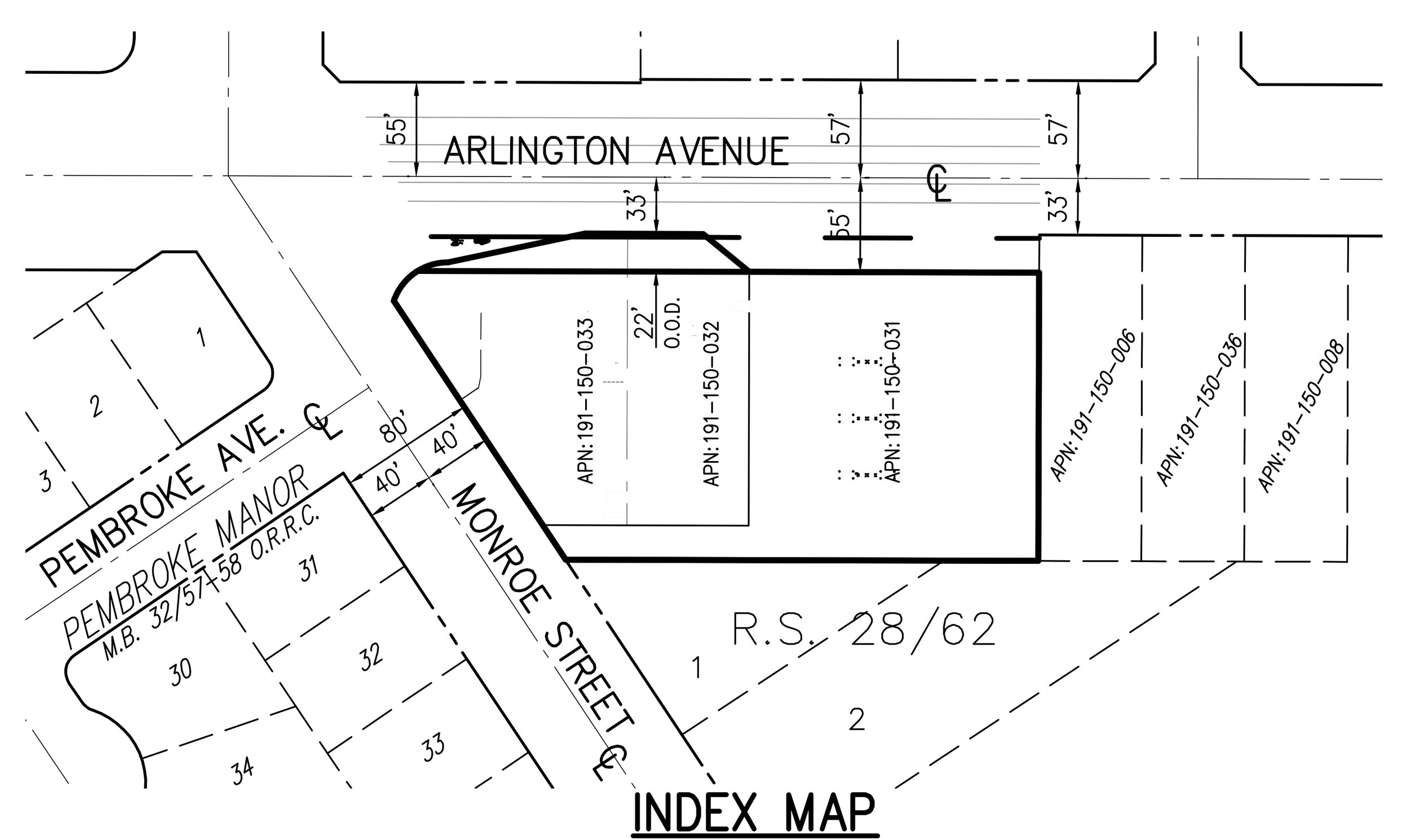
PROPOSED AC PAVEMENT
PROPOSED LANDSCAPE
PROPOSED CONCRETE
PROPOSED BIORETENTION AREA

ABBREVIATIONS

R/W	RIGHT OF WAY
P/L	PROPERTY LINE
EXIST.	EXISTING
PROP.	PROPOSED
S.F.	SQUARE FEET
D/W	DRIVEWAY
S/W	SIDEWALK
M.H.	MANHOLE
FS	FINISH SURFACE
TC	TOP OF CURB
FL	FLOW LINE
FG	FINISH GRADE
TG	TOP OF GRATE
INV.	INVERT
S.D.	STORM DRAIN
EG	EXISTING GROUND
T.B.R.	TO BE REMOVED
P.I.P.	PROTECT IN PLACE
P.P.	POWER POLE
F.H.	FIRE HYDRANT
L/S	LANDSCAPE

CONSTRUCTION NOTES

1. PROPOSED 6" CURB AND GUTTER PER CITY OF RIVERSIDE STD. NO. 200. TYPE 1.
2. PROPOSED CURB SIDEWALK PER CITY OF RIVERSIDE STD. NO. 325.
3. PROPOSED TYPE PL 2 DRIVEWAY APPROACH PER CITY OF RIVERSIDE STD. NO. 302.
4. PROPOSED PARKWAY DRAIN PER CITY OF RIVERSIDE STD. NO. 410.
5. PROPOSED STREET A.C PAVING.
6. PROPOSED COLD PLANE AND OVERLAY.
7. PROPOSED ON-SITE A.C PAVING.
8. PROPOSED CONCRETE HARDSCAPE.
9. PROPOSED 6" CURB ONLY.
10. PROPOSED 24"X24" INLET
11. PROPOSED 6" CURB AND GUTTER.
12. PROPOSED OVERFLOW PARKWAY DRAIN.
13. PROPOSED 3' WIDE CONCRETE RIBBON GUTTER.
14. PROPOSED LANDSCAPE.
15. PROPOSED TRASH ENCLOSURE.
16. WQMP BIO-RETENTION BASIN
17. PROPOSED FIRE SERVICE.
18. PROPOSED DCDA BACKFLOW DEVICE.
19. PROPOSED PIV AND FDC.
20. PROPOSED FIRE WATER LINE (PRIVATE)
21. PROPOSED DOMESTIC SERVICE, METER AND BACKFLOW DEVICE.
22. PROPOSED IRRIGATION SERVICE, METER AND BACKFLOW DEVICE.
23. PROPOSED DOMESTIC WATER LINE (PRIVATE)
24. PROPOSED SEWER LATERAL AND CLEAN OUT.
25. PROPOSED SEWER LINE (PRIVATE)
26. PROPOSED SEWER CLEAN OUT.
27. PROPOSED GREASE INTERCEPTOR.
28. PROPOSED COMBINATION RETAINING/FREE STANDING WALL H=9' MAX.
29. PROPOSED 6' HIGH FREE STANDING WALL.
30. PROPOSED FIRE HYDRANT.
31. PROPOSED TYPE CURB 2 DRIVEWAY APPROACH PER CITY OF RIVERSIDE STD. NO. 302.
32. PROPOSED TRANSFORMER SEE ARCHITECTURE PLAN.
33. PROPOSED HEALY TANK SEE ARCHITECTURE PLAN.
34. PROPOSED RIP-RAP PAD.
35. PROPOSED 6" STORM DRAIN PIPE.
36. PROPOSED PRIVATE UNDER SIDEWALK DRAIN.

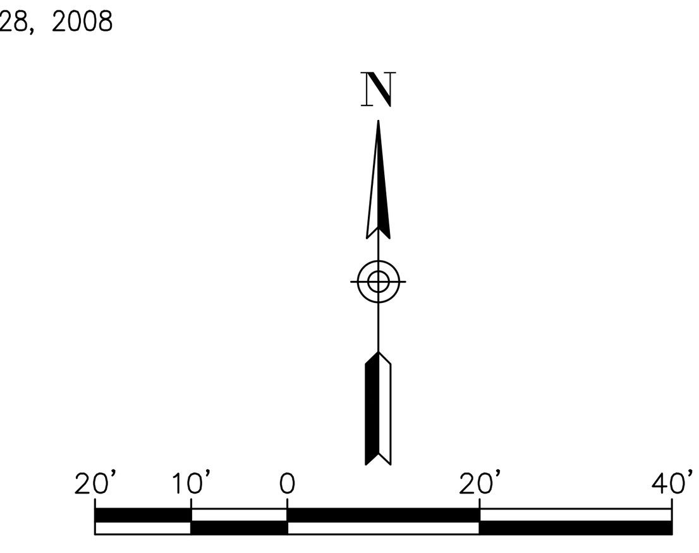


INDEX MAP

SCALE: 1"=100'

FEMA FLOOD ZONE DESIGNATION

ZONE X – BASE FLOOD ELEVATIONS DETERMINED.
FLOOD INSURANCE RATE MAP
RIVERSIDE COUNTY, CALIFORNIA AND INCORPORATED AREAS.
PANEL 705 OF 3805
MAP NUMBER 06065C0705G
EFFECTIVE DATE
AUGUST 28, 2008



GRAPHIC SCALE
SCALE: 1" = 20'

MARK	REVISIONS	DATE	BY

CONCEPTUAL GRADING PLAN
6902, 6892 & 6836 ARLINGTON AVENUE

FOR: STEVEN WALKER COMMUNITIES

SCALE:	1"=20'
DATE:	02/2026
DESIGNED:	AW
CHECKED:	AW
PLN CK REF:	
F.B.	

woodard group

W.O.
SHEET 1 OF 3 SHEETS
DWG. NO. 1103

Greenhouse Gas Emissions Assessment
Gas Station and Convenience Store Project
City of Riverside, California

Kimley»Horn
Expect More. Experience Better.

Prepared by:

Kimley-Horn and Associates, Inc.
1100 W Town and Country Road, Suite 700
Orange, California 92868
Contact: Mr. Ace Malisos
714.939.1030

January 2021

TABLE OF CONTENTS

1 INTRODUCTION
1.1 Project Location 1
1.2 Project Description 1

2 ENVIRONMENTAL SETTING
2.1 Greenhouse Gases and Climate Change 6

3 REGULATORY SETTING
3.1 Federal 8
3.2 State of California 9
3.3 Regional 16
3.4 Local 17

4 SIGNIFICANCE CRITERIA AND METHODOLOGY
4.1 Thresholds and Significant Criteria 19
4.2 Methodology 19

5 POTENTIAL GREENHOUSE GAS IMPACTS AND MITIGATION
5.1 Greenhouse Gas Emissions 21
5.2 Greenhouse Gas Reduction Plan Compliance 22
5.3 Cumulative Setting, Impacts, and Mitigation Measures 27

6 REFERENCES
References 29

TABLES
Table 1 Description of Greenhouse Gases 7
Table 2 Construction-Related Greenhouse Gas Emissions 21
Table 3 Project Greenhouse Gas Emissions 22
Table 4 Regional Transportation Plan/Sustainable Communities Strategy Consistency 23
Table 5 Project Consistency with Applicable CARB Scoping Plan Measures 25

FIGURES
Figure 1 Regional Vicinity 3
Figure 2 Site Vicinity 4
Figure 3 Site Plan 5

APPENDIX
Appendix A: Greenhouse Gas Emissions Data

LIST OF ABBREVIATED TERMS

AB	Assembly Bill
CARB	California Air Resource Board
CCR	California Code of Regulations
CalEEMod	California Emissions Estimator Model
CEQA	California Environmental Quality Act
CALGreen Code	California Green Building Standards Code
CPUC	California Public Utilities Commission
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
CFC	Chlorofluorocarbon
CPP	Clean Power Plan
cy	Cubic yard
EPA	Environmental Protection Agency
FCAA	Federal Clean Air Act
FR	Federal Register
GHG	Greenhouse gas
HCFC	Hydrochlorofluorocarbon
HFC	Hydrofluorocarbon
LCFS	Low Carbon Fuel Standard
CH_4	Methane
$MMTCO_2e$	Million metric tons of carbon dioxide equivalent
$MTCO_2e$	Metric tons of carbon dioxide equivalent
NHTSA	National Highway Traffic Safety Administration
NF_3	Nitrogen trifluoride
N_2O	Nitrous oxide
PFC	Perfluorocarbon
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SB	Senate Bill
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SCAG	Southern California Association of Government
Sf	Square foot
SF_6	Sulfur hexafluoride
TAC	Toxic air contaminants

1 INTRODUCTION

This report documents the results of a Greenhouse Gas (GHG) Emissions Assessment completed for the Gas Station and Convenience Store Project ("Project" or "Proposed Project"). The purpose of this GHG Emissions Assessment is to evaluate the potential construction and operational emissions associated with the Project and determine the level of impact the Project would have on the environment.

1.1 Project Location and Setting

The Project site is located on the southeastern corner of Arlington Avenue and Monroe Street in the City of Riverside (City), within Riverside County (County), adjacently west of Interstate 215 (I-210) and approximately six miles east of the Interstate 15 (I-15); refer to Figure 1: Regional Location.

The Project site bounded by Arlington Street to the north, Monroe Street to the west, and residences to the east and south. Commercial uses are located to the north and west, across Arlington Street and Monroe Street. The Project site is an irregular, vacant, and unimproved rectangular-shaped site on approximately 1.3 acres. Based on aerial imagery, the site is predominately vacant and annually covered with scattered natural grasses and a single tree located in the southwestern portion of the site; refer to Figure 2: Site Vicinity.

1.2 Project Description

The proposed Project consists the construction of a new gas station with a 7-Eleven convenience store. The Project proposes the development of a 50,770 square foot gas fueling area with 12 pumps at the central section of the Project site. The Project also includes an approximately 4,740 square foot convenience store and restaurant building located on the western portion of the site with associated facilities and improvements such as a kitchen, storage, and restroom spaces; refer to Figure 3: Site Plan. The store's hours of operation are proposed from 7:00 a.m. to 11:00 p.m.

As noted above, the Project site is currently undeveloped, but it is immediately surrounded by developed properties. The Project as a whole encompasses several applications that will require approval by the City's Planning Commission and City Council.

- P20-0429 proposes the modification of the General Plan land use designation on the Project site from O (Office) to C (Commercial).

- P20-0430 proposes the modification of the zoning of a portion of the Project site from R-1-7000 (Single Family Residential, 7,000 square foot minimum lot size) to C-R (Commercial Retail) in conformance with the rest of the property that is zoned C-R.

- PP20-0431 proposes the establishment of a gas station / convenience store with off-sale beer and wine sales in accordance with Table 19.150.020 of the City's Zoning Oridnance.

- PP20-0432 proposes the review of the site planning and architecture for a proposed gas station, convenience store, and indoor restaurant. The site plan includes a 4,740 square foot main building which will house the convenience store and restaurant; a covered canopy for six (6) fuel

pumps, thirty (30) parking spaces, of which two will be handicapped accessible; an outoor dining pation, and a bio retention basin.

- P20-0433 proposes the finding of Public Convenience and Necessity (PCN) for the off-sale consumption of alcohol from the convenience store. As of this writing, four off-sale licenses are allowed in this census tract per the allotment of the California Department of Beverage Control (ABC). Six off-sale licenses already exist in this census tract, and this establishment would increase that number to seven.

Project Phasing and Construction

The Project is anticipated to be developed in one phase. Should the Project be approved, construction is anticipated to occur over a duration of approximately one year, commencing in the second half of 2021; the facility would be operational in the second half of 2022.

FIGURE 1: Regional Vicinity
7-11 Project
City of Riverside

Not to Scale

Kimley»Horn
Expect More. Experience Better.

FIGURE 2: Site Vicinity
7-11 Project
City of Riverside

Not to Scale

Kimley»Horn
Expect More. Experience Better.

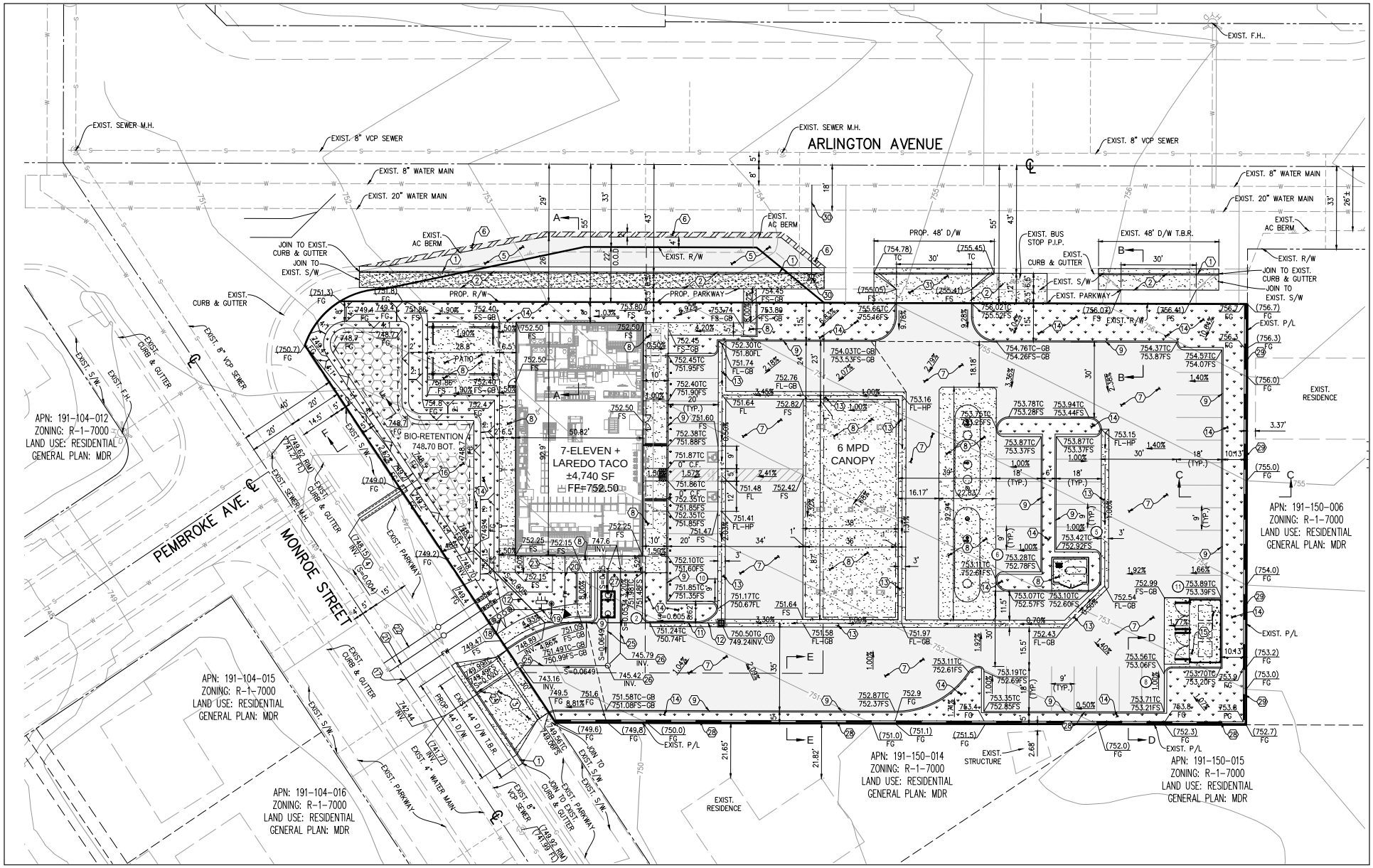


FIGURE 3: Site Plan
7-11 Project
City of Riverside

Not to Scale

Kimley»Horn
Expect More. Experience Better.

2 ENVIRONMENTAL SETTING

2.1 Greenhouse Gases and Climate Change

Certain gases in the earth's atmosphere classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface and a smaller portion of this radiation is reflected back toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. Because the earth has a much lower temperature than the sun, it emits lower-frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth.

The primary GHGs contributing to the greenhouse effect are carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). Fluorinated gases also make up a small fraction of the GHGs that contribute to climate change. Examples of fluorinated gases include chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3); however, it is noted that these gases are not associated with typical land use development. Human-caused emissions of GHGs exceeding natural ambient concentrations are believed to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the Earth's climate, known as global climate change or global warming.

GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants (TACs), which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (one to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the exact lifetime of a GHG molecule is dependent on multiple variables and cannot be pinpointed, more CO_2 is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, or other forms of carbon sequestration. Of the total annual human-caused CO_2 emissions, approximately 55 percent is sequestered through ocean and land uptakes every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO_2 emissions remains stored in the atmosphere.[1] Table 1: Description of Greenhouse Gases describes the primary GHGs attributed to global climate change, including their physical properties.

[1] Intergovernmental Panel on Climate Change, *Carbon and Other Biogeochemical Cycles. In: Climate Change 2013: The Physical Science Basis*, *Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, 2013. http://www.climatechange2013.org/ images/report/WG1AR5_ALL_FINAL.pdf.

Table 1: Description of Greenhouse Gases

Greenhouse Gas	Description
Carbon Dioxide (CO_2)	CO_2 is a colorless, odorless gas that is emitted naturally and through human activities. Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood. The largest source of CO_2 emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, and industrial facilities. The atmospheric lifetime of CO_2 is variable because it is readily exchanged in the atmosphere. CO_2 is the most widely emitted GHG and is the reference gas (Global Warming Potential of 1) for determining Global Warming Potentials for other GHGs.
Nitrous Oxide (N_2O)	N_2O is largely attributable to agricultural practices and soil management. Primary human-related sources of N_2O include agricultural soil management, sewage treatment, combustion of fossil fuels, and adipic and nitric acid production. N_2O is produced from biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N_2O is approximately 120 years. The Global Warming Potential of N_2O is 298.
Methane (CH_4)	CH_4, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. Methane is the major component of natural gas, about 87 percent by volume. Human-related sources include fossil fuel production, animal husbandry, rice cultivation, biomass burning, and waste management. Natural sources of CH_4 include wetlands, gas hydrates, termites, oceans, freshwater bodies, non-wetland soils, and wildfires. The atmospheric lifetime of CH_4 is about 12 years and the Global Warming Potential is 25.
Hydrofluorocarbons (HFCs)	HFCs are typically used as refrigerants for both stationary refrigeration and mobile air conditioning. The use of HFCs for cooling and foam blowing is increasing, as the continued phase out of CFCs and HCFCs gains momentum. The 100-year Global Warming Potential of HFCs range from 124 for HFC-152 to 14,800 for HFC-23.
Perfluorocarbons (PFCs)	PFCs have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth's surface. Because of this, they have long lifetimes, between 10,000 and 50,000 years. Two main sources of PFCs are primary aluminum production and semiconductor manufacturing. Global Warming Potentials range from 6,500 to 9,200.
Chlorofluorocarbons (CFCs)	CFCs are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. They are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). CFCs were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. The Montreal Protocol on Substances that Deplete the Ozone Layer prohibited their production in 1987. Global Warming Potentials for CFCs range from 3,800 to 14,400.
Sulfur Hexafluoride (SF_6)	SF_6 is an inorganic, odorless, colorless, and nontoxic, nonflammable gas. It has a lifetime of 3,200 years. This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas. The Global Warming Potential of SF_6 is 23,900.
Hydrochlorofluorocarbons (HCFCs)	HCFCs are solvents, similar in use and chemical composition to CFCs. The main uses of HCFCs are for refrigerant products and air conditioning systems. As part of the Montreal Protocol, HCFCs are subject to a consumption cap and gradual phase out. The United States is scheduled to achieve a 100 percent reduction to the cap by 2030. The 100-year Global Warming Potentials of HCFCs range from 90 for HCFC-123 to 1,800 for HCFC-142b.
Nitrogen Trifluoride (NF_3)	NF_3 was added to Health and Safety Code section 38505(g)(7) as a GHG of concern. This gas is used in electronics manufacture for semiconductors and liquid crystal displays. It has a high global warming potential of 17,200.

Source: Compiled from U.S. EPA, *Overview of Greenhouse Gases*, April 11, 2018 (https://www.epa.gov/ghgemissions/overview-greenhouse-gases); U.S. EPA, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2016*, 2018; Intergovernmental Panel on Climate Change, *Climate Change 2007: The Physical Science Basis*, 2007; National Research Council, Advancing the Science of Climate Change, 2010; U.S. EPA, *Methane and Nitrous Oxide Emission from Natural Sources*, April 2010.

3 REGULATORY SETTING

3.1 Federal

To date, national standards have not been established for nationwide GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level. Various efforts have been promulgated at the federal level to improve fuel economy and energy efficiency to address climate change and its associated effects.

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 (December 2007), among other key measures, requires the following, which would aid in the reduction of national GHG emissions:

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
- Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020 and direct the National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
- Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

U.S. Environmental Protection Agency Endangerment Finding

The U.S. Environmental Protection Agency (U.S. EPA) authority to regulate GHG emissions stems from the U.S. Supreme Court decision in *Massachusetts v. EPA* (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Federal Clean Air Act (FCAA) and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court's ruling, the U.S. EPA finalized an endangerment finding in December 2009. Based on scientific evidence it found that six GHGs (CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) constitute a threat to public health and welfare. Thus, it is the Supreme Court's interpretation of the existing FCAA and the U.S. EPA's assessment of the scientific evidence that form the basis for the U.S. EPA's regulatory actions.

Federal Vehicle Standards

In response to the U.S. Supreme Court ruling discussed above, Executive Order 13432 was issued in 2007 directing the U.S. EPA, the Department of Transportation, and the Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011, and in 2010, the U.S. EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016.

In 2010, an Executive Memorandum was issued directing the Department of Transportation, Department of Energy, U.S. EPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the U.S. EPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards projected to achieve 163 grams per mile of CO_2 in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017–2021, and NHTSA intends to set standards for model years 2022–2025 in a future rulemaking. On January 12, 2017, the U.S. EPA finalized its decision to maintain the current GHG emissions standards for model years 2022–2025 cars and light trucks. It should be noted that the U.S. EPA is currently proposing to freeze the vehicle fuel efficiency standards at their planned 2020 level (37 mpg), canceling any future strengthening (currently 54.5 mpg by 2026).

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the U.S. EPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for CO_2 emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the U.S. EPA, this regulatory program will reduce GHG emissions and fuel consumption for the affected vehicles by 6 to 23 percent over the 2010 baselines.

In August 2016, the U.S. EPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model year 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards are expected to lower CO_2 emissions by approximately 1.1 billion metric tons and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program.

In 2018, the U.S. EPA stated their intent to halt various federal regulatory activities to reduce GHG emission, including the phase two program. California and other states have stated their intent to challenge federal actions that would delay or eliminate GHG reduction measures and have committed to cooperating with other countries to implement global climate change initiatives. On September 27, 2019, the U.S. EPA and the NHTSA published the "Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program." (84 Fed. Reg. 51,310 (Sept. 27, 2019.) The Part One Rule revokes California's authority to set its own GHG emissions standards and set zero-emission vehicle mandates in California. On March 31, 2020, the U.S. EPA and NHTSA finalized rulemaking for SAFE Part Two sets CO_2 emissions standards and corporate average fuel economy (CAFE) standards for passenger vehicles and light duty trucks, covering model years 2021-2026.

3.2 State of California

California Air Resources Board

The California Air Resources Board (CARB) is responsible for the coordination and oversight of State and local air pollution control programs in California. Various statewide and local initiatives to reduce California's contribution to GHG emissions have raised awareness about climate change and its potential for severe long-term adverse environmental, social, and economic effects. California is a significant emitter of CO_2 equivalents (CO_2e) in the world and produced 425 million gross metric tons of CO_2e in

2018[2]. In the State, the transportation sector is the largest emitter of GHGs, followed by industrial operations such as manufacturing and oil and gas extraction.

The State of California legislature has enacted a series of bills that constitute the most aggressive program to reduce GHGs of any state in the nation. Some legislation, such as the landmark Assembly Bill (AB) 32, *California Global Warming Solutions Act of 2006*, was specifically enacted to address GHG emissions. Other legislation, such as Title 24 building efficiency standards and Title 20 appliance energy standards, were originally adopted for other purposes such as energy and water conservation, but also provide GHG reductions. This section describes the major provisions of the legislation.

Assembly Bill 32 (California Global Warming Solutions Act of 2006)

AB 32 instructs the CARB to develop and enforce regulations for the reporting and verification of statewide GHG emissions. AB 32 also directed CARB to set a GHG emissions limit based on 1990 levels, to be achieved by 2020. It set a timeline for adopting a scoping plan for achieving GHG reductions in a technologically and economically feasible manner.

California Air Resource Board Scoping Plan

CARB adopted the Scoping Plan to achieve the goals of AB 32. The Scoping Plan establishes an overall framework for the measures that would be adopted to reduce California's GHG emissions. CARB determined that achieving the 1990 emissions level would require a reduction of GHG emissions of approximately 29 percent below what would otherwise occur in 2020 in the absence of new laws and regulations (referred to as "business-as-usual").[3] The Scoping Plan evaluates opportunities for sector-specific reductions, integrates early actions and additional GHG reduction measures by both CARB and the State's Climate Action Team, identifies additional measures to be pursued as regulations, and outlines the adopted role of a cap-and-trade program.[4] Additional development of these measures and adoption of the appropriate regulations occurred through the end of 2013. Key elements of the Scoping Plan include:

- Expanding and strengthening existing energy efficiency programs, as well as building and appliance standards.
- Achieving a statewide renewables energy mix of 33 percent by 2020.
- Developing a California cap-and-trade program that links with other programs to create a regional market system and caps sources contributing 85 percent of California's GHG emissions (adopted in 2011).

[2] California Air Resources Board, *California Greenhouse Gas Emissions for 2000 to 2018*, 2020.

[3] CARB defines business-as-usual (BAU) in its Scoping Plan as emissions levels that would occur if California continued to grow and add new GHG emissions but did not adopt any measures to reduce emissions. Projections for each emission-generating sector were compiled and used to estimate emissions for 2020 based on 2002–2004 emissions intensities. Under CARB's definition of BAU, new growth is assumed to have the same carbon intensities as was typical from 2002 through 2004.

[4] The Climate Action Team, led by the secretary of the California Environmental Protection Agency, is a group of State agency secretaries and heads of agencies, boards, and departments. Team members work to coordinate statewide efforts to implement global warming emissions reduction programs and the State's Climate Adaptation Strategy.

- Establishing targets for transportation-related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets (several sustainable community strategies have been adopted).
- Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, heavy-duty truck measures, the Low Carbon Fuel Standard (amendments to the Pavley Standard adopted 2009; Advanced Clean Car standard adopted 2012), goods movement measures, and the Low Carbon Fuel Standard (adopted 2009).
- Creating targeted fees, including a public goods charge on water use, fees on gasses with high global warming potential, and a fee to fund the administrative costs of the State of California's long-term commitment to AB 32 implementation.

In 2012, CARB released revised estimates of the expected 2020 emissions reductions. The revised analysis relied on emissions projections updated in light of current economic forecasts that accounted for the economic downturn since 2008, reduction measures already approved and put in place relating to future fuel and energy demand, and other factors. This update reduced the projected 2020 emissions from 596 million metric tons of CO_2e ($MMTCO_2e$) to 545 $MMTCO_2e$. The reduction in forecasted 2020 emissions means that the revised business-as-usual reduction necessary to achieve AB 32's goal of reaching 1990 levels by 2020 is now 21.7 percent, down from 29 percent. CARB also provided a lower 2020 inventory forecast that incorporated State-led GHG emissions reduction measures already in place. When this lower forecast is considered, the necessary reduction from business-as-usual needed to achieve the goals of AB 32 is approximately 16 percent.

CARB adopted the first major update to the Scoping Plan on May 22, 2014. The updated Scoping Plan summarizes the most recent science related to climate change, including anticipated impacts to California and the levels of GHG emissions reductions necessary to likely avoid risking irreparable damage. It identifies the actions California has already taken to reduce GHG emissions and focuses on areas where further reductions could be achieved to help meet the 2020 target established by AB 32.

In 2016, the Legislature passed Senate Bill (SB) 32, which codifies a 2030 GHG emissions reduction target of 40 percent below 1990 levels. With SB 32, the Legislature passed companion legislation, AB 197, which provides additional direction for developing the Scoping Plan. On December 14, 2017 CARB adopted a second update to the Scoping Plan.[5] The 2017 Scoping Plan details how the State will reduce GHG emissions to meet the 2030 target set by Executive Order B-30-15 and codified by SB 32. Other objectives listed in the 2017 Scoping plan are to provide direct GHG emissions reductions; support climate investment in disadvantaged communities; and, support the Clean Power Plan and other Federal actions.

Senate Bill 32 (California Global Warming Solutions Act of 2006: Emissions Limit)

Signed into law in September 2016, SB 32 codifies the 2030 GHG reduction target in Executive Order B-30-15 (40 percent below 1990 levels by 2030). The bill authorizes CARB to adopt an interim GHG emissions level target to be achieved by 2030. CARB also must adopt rules and regulations in an open public process to achieve the maximum, technologically feasible, and cost-effective GHG reductions.

[5] California Air Resources Board, *California's 2017 Climate Change Scoping Plan,* https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf, accessed March 12, 2020.

SB 375 (The Sustainable Communities and Climate Protection Act of 2008)

Signed into law on September 30, 2008, SB 375 provides a process to coordinate land use planning, regional transportation plans, and funding priorities to help California meet the GHG reduction goals established by AB 32. SB 375 requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing GHG emissions, aligns planning for transportation and housing, and creates specified incentives for the implementation of the strategies.

AB 1493 (Pavley Regulations and Fuel Efficiency Standards)

AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. Implementation of the regulation was delayed by lawsuits filed by automakers and by the U.S. EPA's denial of an implementation waiver. The U.S. EPA subsequently granted the requested waiver in 2009, which was upheld by the by the U.S. District Court for the District of Columbia in 2011. The regulations establish one set of emission standards for model years 2009–2016 and a second set of emissions standards for model years 2017 to 2025. By 2025, when all rules will be fully implemented, new automobiles will emit 34 percent fewer CO_2e emissions and 75 percent fewer smog-forming emissions.

SB 1368 (Emission Performance Standards)

SB 1368 is the companion bill of AB 32, which directs the California Public Utilities Commission (CPUC) to adopt a performance standard for GHG emissions for the future power purchases of California utilities. SB 1368 limits carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than 5 years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. The new law effectively prevents California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. The CPUC adopted the regulations required by SB 1368 on August 29, 2007. The regulations implementing SB 1368 establish a standard for baseload generation owned by, or under long-term contract to publicly owned utilities, for 1,100 pounds of CO_2 per megawatt-hour.

SB 1078 and SBX1-2 (Renewable Electricity Standards)

SB 1078 requires California to generate 20 percent of its electricity from renewable energy by 2017. SB 107 changed the due date to 2010 instead of 2017. On November 17, 2008, Governor Arnold Schwarzenegger signed Executive Order S-14-08, which established a Renewable Portfolio Standard target for California requiring that all retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. Executive Order S-21-09 also directed CARB to adopt a regulation by July 31, 2010, requiring the State's load serving entities to meet a 33 percent renewable energy target by 2020. CARB approved the Renewable Electricity Standard on September 23, 2010 by Resolution 10-23. SBX1-2, which codified the 33 percent by 2020 goal.

SB 350 (Clean Energy and Pollution Reduction Act of 2015)

Signed into law on October 7, 2015, SB 350 implements the goals of Executive Order B-30-15. The objectives of SB 350 are to increase the procurement of electricity from renewable sources from 33 percent to 50 percent (with interim targets of 40 percent by 2024, and 25 percent by 2027) and to double the energy efficiency savings in electricity and natural gas end uses of retail customers through energy

efficiency and conservation. SB 350 also reorganizes the Independent System Operator to develop more regional electricity transmission markets and improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States.

AB 398 (Market-Based Compliance Mechanisms)

Signed on July 25, 2017, AB 398 extended the duration of the Cap-and-Trade program from 2020 to 2030. AB 398 required CARB to update the Scoping Plan and for all GHG rules and regulations adopted by the State. It also designated CARB as the statewide regulatory body responsible for ensuring that California meets its statewide carbon pollution reduction targets, while retaining local air districts' responsibility and authority to curb toxic air contaminants and criteria pollutants from local sources that severely impact public health. AB 398 also decreased free carbon allowances over 40 percent by 2030 and prioritized Cap-and-Trade spending to various programs including reducing diesel emissions in impacted communities.

SB 150 (Regional Transportation Plans)

Signed on October 10, 2017, SB 150 aligns local and regional GHG reduction targets with State targets (i.e. 40 percent below their 1990 levels by 2030). SB 150 creates a process to include communities in discussions on how to monitor their regions' progress on meeting these goals. The bill also requires the CARB to regularly report on that progress, as well as on the successes and the challenges regions experience associated with achieving their targets. SB 150 provides for accounting of climate change efforts and GHG reductions and identify effective reduction strategies.

SB 100 (California Renewables Portfolio Standard Program: Emissions of Greenhouse Gases)

Signed into Law in September 2018, SB 100 increased California's renewable electricity portfolio from 50 to 60 percent by 2030. SB 100 also established a further goal to have an electric grid that is entirely powered by clean energy by 2045.

CARB Advanced Clean Truck Regulation

CARB adopted the Advanced Clean Truck Regulation in June 2020 requiring truck manufacturers to transition from diesel trucks and vans to electric zero-emission trucks beginning in 2024. By 2045, every new truck sold in California is required to be zero-emission. This rule directly addresses disproportionate risks and health and pollution burdens and puts California on the path for an all zero-emission short-haul drayage fleet in ports and railyards by 2035, and zero-emission "last-mile" delivery trucks and vans by 2040. The Advanced Clean Truck Regulation accelerates the transition of zero-emission medium-and heavy-duty vehicles from Class 2b to Class 8. The regulation has two components including a manufacturer sales requirement, and a reporting requirement:

- Zero-Emission Truck Sales: Manufacturers who certify Class 2b through 8 chassis or complete vehicles with combustion engines are required to sell zero-emission trucks as an increasing percentage of their annual California sales from 2024 to 2035. By 2035, zero-emission truck/chassis sales need to be 55 percent of Class 2b – 3 truck sales, 75 percent of Class 4 – 8 straight truck sales, and 40 percent of truck tractor sales.

- Company and Fleet Reporting: Large employers including retailers, manufacturers, brokers and others would be required to report information about shipments and shuttle services. Fleet

owners, with 50 or more trucks, would be required to report about their existing fleet operations. This information would help identify future strategies to ensure that fleets purchase available zero-emission trucks and place them in service where suitable to meet their needs.

Executive Orders Related to GHG Emissions

California's Executive Branch has taken several actions to reduce GHGs using executive orders. Although not regulatory, they set the tone for the State and guide the actions of state agencies.

Executive Order S-3-05

Executive Order S-3-05 was issued on June 1, 2005, which established the following GHG emissions reduction targets:

- 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.

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be a mid-term target. Because this is an executive order, the goals are not legally enforceable for local governments or the private sector.

Executive Order S-01-07

Issued on January 18, 2007, Executive Order S 01-07 mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020. The executive order established a Low Carbon Fuel Standard (LCFS) and directed the Secretary for Environmental Protection to coordinate the actions of the California Energy Commission, CARB, the University of California, and other agencies to develop and propose protocols for measuring the "life-cycle carbon intensity" of transportation fuels. CARB adopted the LCFS on April 23, 2009.

Executive Order S-13-08

Issued on November 14, 2008, Executive Order S-13-08 facilitated the California Natural Resources Agency development of the 2009 California Climate Adaptation Strategy. Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

Executive Order S-14-08

Issued on November 17, 2008, Executive Order S-14-08 expands the State's Renewable Energy Standard to 33 percent renewable power by 2020. Additionally, Executive Order S-21-09 (signed on September 15, 2009) directs CARB to adopt regulations requiring 33 percent of electricity sold in the State come from renewable energy by 2020. CARB adopted the Renewable Electricity Standard on September 23, 2010, which requires 33 percent renewable energy by 2020 for most publicly owned electricity retailers.

Executive Order S-21-09

Issued on July 17, 2009, Executive Order S-21-09 directs CARB to adopt regulations to increase California's RPS to 33 percent by 2020. This builds upon SB 1078 (2002), which established the California RPS program, requiring 20 percent renewable energy by 2017, and SB 107 (2006), which advanced the 20 percent deadline to 2010, a goal which was expanded to 33 percent by 2020 in the 2005 Energy Action Plan II.

Executive Order B-30-15

Issued on April 29, 2015, Executive Order B-30-15 established a California GHG reduction target of 40 percent below 1990 levels by 2030 and directs CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of CO_2e (MMTCO2e). The 2030 target acts as an interim goal on the way to achieving reductions of 80 percent below 1990 levels by 2050, a goal set by Executive Order S-3-05. The executive order also requires the State's climate adaptation plan to be updated every three years and for the State to continue its climate change research program, among other provisions. With the enactment of SB 32 in 2016, the Legislature codified the goal of reducing GHG emissions by 2030 to 40 percent below 1990 levels.

Executive Order B-55-18

Issued on September 10, 2018, Executive Order B-55-18 establishes a goal to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter. This goal is in addition to the existing statewide targets of reducing GHG emissions. The executive order requires CARB to work with relevant state agencies to develop a framework for implementing this goal. It also requires CARB to update the Scoping Plan to identify and recommend measures to achieve carbon neutrality. The executive order also requires state agencies to develop sequestration targets in the Natural and Working Lands Climate Change Implementation Plan.

Executive Order N-79-20

Signed in September 2020, Executive Order N-79-20 establishes as a goal that where feasible, all new passenger cars and trucks, as well as all drayage/cargo trucks and off-road vehicles and equipment, sold in California, will be zero-emission by 2035. The executive order sets a similar goal requiring that all medium and heavy-duty vehicles will be zero-emission by 2045 where feasible. It also directs CARB to develop and propose rulemaking for passenger vehicles and trucks, medium-and heavy-duty fleets where feasible, drayage trucks, and off-road vehicles and equipment "requiring increasing volumes" of new zero emission vehicles (ZEVs) "towards the target of 100 percent." The executive order directs the California Environmental Protection Agency, the California Geologic Energy Management Division (CalGEM), and the California Natural Resources Agency to transition and repurpose oil production facilities with a goal toward meeting carbon neutrality by 2045. Executive Order N-79-20 builds upon the CARB Advanced Clean Trucks regulation, which was adopted by CARB in July 2020.

California Regulations and Building Codes

California has a long history of adopting regulations to improve energy efficiency in new and remodeled buildings. These regulations have kept California's energy consumption relatively flat even with rapid population growth.

Title 20 Appliance Efficiency Regulations

The appliance efficiency regulations (California Code of Regulations [CCR] Title 20, Sections 1601-1608) include standards for new appliances. Twenty-three categories of appliances are included in the scope of these regulations. These standards include minimum levels of operating efficiency, and other cost-effective measures, to promote the use of energy- and water-efficient appliances.

Title 24 Building Energy Efficiency Standards

California's Energy Efficiency Standards for Residential and Nonresidential Buildings (CCR Title 24, Part 6), was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions. The 2019 Building Energy Efficiency Standards were adopted on May 9, 2018 and went into effect on January 1, 2020. Under the 2019 standards, homes will use about 53 percent less energy and nonresidential buildings will use about 30 percent less energy than buildings under the 2016 standards.

Title 24 California Green Building Standards Code

The California Green Building Standards Code (CCR Title 24, Part 11 code) commonly referred to as the CALGreen Code, is a statewide mandatory construction code developed and adopted by the California Building Standards Commission and the Department of Housing and Community Development. The CALGreen standards require new residential and commercial buildings to comply with mandatory measures under the topics of planning and design, energy efficiency, water efficiency/conservation, material conservation and resource efficiency, and environmental quality. CALGreen also provides voluntary tiers and measures that local governments may adopt that encourage or require additional measures in the five green building topics. The most recent update to the CALGreen Code went into effect January 1, 2020 (2019 CALGreen). The 2019 CALGreen standards continue to improve upon the existing standards for new construction of, and additions and alterations to, residential and nonresidential buildings.

3.3 Regional

South Coast Air Quality Management District Thresholds

The South Coast Air Quality Management District (SCAQMD) formed a GHG California Environmental Quality Act (CEQA) Significance Threshold Working Group to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. As of the last Working Group meeting (Meeting 15) held in September 2010, the SCAQMD is proposing to adopt a tiered approach for evaluating GHG emissions for development projects where SCAQMD is not the lead agency.

With the tiered approach, the Project is compared with the requirements of each tier sequentially and would not result in a significant impact if it complies with any tier. Tier 1 excludes projects that are specifically exempt from SB 97 from resulting in a significant impact. Tier 2 excludes projects that are consistent with a GHG reduction plan that has a certified final CEQA document and complies with AB 32 GHG reduction goals. Tier 3 excludes projects with annual emissions lower than a screening threshold. The SCAQMD has adopted a threshold of 10,000 metric tons of CO_2e ($MTCO_2e$) per year for industrial

projects and a 3,000 $MTCO_2e$ threshold was proposed for non-industrial projects but has not been adopted. SCAQMD concluded that projects with emissions less than the screening threshold would not result in a significant cumulative impact.

Tier 4 consists of three decision tree options. Under the Tier 4 first option, SCAQMD initially outlined that a project would be excluded if design features and/or mitigation measures resulted in emissions 30 percent lower than business as usual emissions. However, the Working Group did not provide a recommendation for this approach. The Working Group folded the Tier 4 second option into the third option. Under the Tier 4 third option, a project would be excluded if it was below an efficiency-based threshold of 4.8 $MTCO_2e$ per service population per year and a post-2020 threshold of 3.0 $MTCO_2e$ per service population per year. Tier 5 would exclude projects that implement offsite mitigation (GHG reduction projects) or purchase offsets to reduce GHG emission impacts to less than the proposed screening level.

GHG efficiency metrics are utilized as thresholds to assess the GHG efficiency of a project on a per capita basis or on a service population basis (the sum of the number of jobs and the number of residents provided by a project) such that a project would allow for consistency with the goals of AB 32 (i.e. 1990 GHG emissions levels by 2020 and 2035). GHG efficiency thresholds can be determined by dividing the GHG emissions inventory goal of the State, by the estimated 2035 population and employment. This method allows highly efficient projects with higher mass emissions to meet the overall reduction goals of AB 32, and is appropriate, because the threshold can be applied evenly to all project types (residential or commercial/retail only and mixed use).

Southern California Association of Governments

On September 3, 2020, SCAG's Regional Council adopted Connect SoCal (2020 - 2045 Regional Transportation Plan/Sustainable Communities Strategy [2020 RTP/SCS]). The RTP/SCS charts a course for closely integrating land use and transportation so that the region can grow smartly and sustainably. The strategy was prepared through a collaborative, continuous, and comprehensive process with input from local governments, county transportation commissions, tribal governments, non-profit organizations, businesses and local stakeholders within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. The RTP/SCS is a long-range vision plan that balances future mobility and housing needs with economic, environmental, and public health goals. The SCAG region strives toward sustainability through integrated land use and transportation planning. The SCAG region must achieve specific federal air quality standards and is required by state law to lower regional GHG emissions.

3.4 Local

City of Riverside General Plan

The City of Riversides' General Plan outlines the mitigation measures shall be implemented to address impacts related to greenhouse gas emissions:

MM Air 8: To reduce GHG emissions through reduced energy consumption and the procurement of lower-emission resources, Riverside Public Utilities (RPU) shall join the California Climate Action Registry (www.climateregistry.org) and comply with GHG regulations developed by the California Air Resources Board (CARB) and the California Energy Commission (CEC) pursuant to AB 32. RPU shall perform yearly

GHG inventories according to the Power/Utility Protocol to identify and implement conservation measures and resource procurement practices that will reduce its GHG emissions.

MM Air 9: To reduce GHG emissions, the City's Environmental Relations Manager, working in conjunction with RPU shall develop, enhance, and/or implement programs to reduce energy consumption. Some examples of programs may be, but are not limited to:

- Replacing incandescent light bulbs with compact fluorescent lamps;
- Participating in the Energy Star Programs;
- Promotion of the use of energy efficient equipment and vehicles;
- Promotion of commercial and residential solar energy rebate programs; and
- Performance based, commercial/industrial energy efficiency rebate program.

MM Air 10: The City will implement an incentive-based program, Green Builder Program, by the end of 2008 to reduce GHG emissions through the energy consumption of proposed new development. A Riverside Green Builder home must meet five criteria:

- Energy Efficiency – built to exceed California Title 24 energy efficiency standards by 15%;
- Water Conservation – conserving 20,000 gallons of water per home per year;
- Waste Reduction – at least 50% of construction waste diverted from landfills;
- Wood Conservation – wood must be from a certified sustainable source and engineered wood products must be used; and
- Indoor Air Quality – Heating, Ventilating and Air Conditioning (HVAC) designed by a licensed engineer to Air Conditioning Contractors of America (ACCA) manual J, S and D or equivalent Sheet Metal and Air Conditioning Contractor's National Association (SMACNA) or American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) standards.

The program will offer incentives such as, but not limited to, faster processing times, same day inspections, etc. for homebuilders to implement green building techniques in the designs of their buildings.

The City of Riverside – Economic Prosperity Action Plan and Climate Action Plan

The City of Riverside CAP (City of Riverside 2016) was adopted in 2016, and is qualified to 2035, expands upon the efforts of the WRCOG Sub-regional CAP, employing local measures to help the City achieve its GHG reduction target for 2035. The process of developing the WRCOG Sub-regional CAP included ongoing coordination and information sharing among participating jurisdictions. To further develop local GHG reduction measures for the Riverside Restorative Growth print Climate Action Plan (RRG-CAP), the City conducted a more detailed assessment of local strategies and actions related to the measures in the Sub-regional CAP, expanding the discussion and analysis with respect to implementation (for post-2020 in particular), costs and funding, performance metrics, and local co-benefits. Local reduction measures in the RRG-CAP are organized into four major sectors:

- Energy – including electricity and natural gas consumption
- Transportation and Land Use
- Water
- Solid Waste

4 SIGNIFICANCE CRITERIA AND METHODOLOGY

4.1 Thresholds and Significance Criteria

Addressing GHG emissions generation impacts requires an agency to determine what constitutes a significant impact. The amendments to the CEQA Guidelines specifically allow lead agencies to determine thresholds of significance that illustrate the extent of an impact and are a basis from which to apply mitigation measures. This means that each agency is left to determine whether a project's GHG emissions would have a "significant" impact on the environment. The guidelines direct that agencies are to use "careful judgment" and "make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate" a project's GHG emissions (14 California Code of Regulations Section 15064.4(a)).

Based upon the criteria derived from Appendix G of the CEQA Guidelines, a project normally would have a significant effect on the environment if it would:

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

South Coast Air Quality Management District Thresholds

The SCAQMD has not announced when staff is expecting to present a finalized version of its GHG thresholds to the governing board. As noted above, the SCAQMD GHG CEQA Significance Threshold Working Group recommended an interim screening level numeric "bright-line" threshold of 3,000 metric tons per year of CO_2e for non-industrial land uses. This working group was formed to assist SCAQMD's efforts to develop a GHG significance threshold and is composed of a wide variety of stakeholders including the State Office of Planning and Research, CARB, the Attorney General's Office, a variety of city and county planning departments in the SCAB, various utilities such as sanitation and power companies throughout the SCAB, industry groups, and environmental and professional organizations. The numeric "bright line" was developed to be consistent with CEQA requirements for developing significance thresholds, are supported by substantial evidence, and provides guidance to CEQA practitioners in determining whether GHG emissions from a proposed project are significant.

The City of Riverside has not adopted project specific GHG significance thresholds. For the purposes of this evaluation, the proposed Project's emissions will be compared to the SCAQMD interim screening level numeric bright-line threshold of 3,000 $MTCO_2e$ per year.

4.2 Methodology

Global climate change is, by definition, a cumulative impact of GHG emissions. Therefore, there is no project-level analysis. The baseline against which to compare potential impacts of the project includes the natural and anthropogenic drivers of global climate change, including world-wide GHG emissions from human activities which almost doubled between 1970 and 2010 from approximately 27 gigatonnes (Gt)

of CO_2/year to nearly 49 $GtCO_2$/year.[6] As such, the geographic extent of climate change and GHG emissions cumulative impact discussion is worldwide.

The Project's construction and operational emissions were calculated using the California Emissions Estimator Model version 2016.3.2 (CalEEMod). Details of the modeling assumptions and emission factors are provided in Appendix A: Greenhouse Gas Emissions Data. For construction, CalEEMod calculates emissions from off-road equipment usage and on-road vehicle travel associated with haul, delivery, and construction worker trips. GHG emissions during construction were forecasted based on the proposed construction schedule and applying the mobile-source and fugitive dust emissions factors derived from CalEEMod. The Project's construction-related GHG emissions would be generated from off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. The Project's operations-related GHG emissions would be generated by vehicular traffic, area sources (e.g., landscaping maintenance, consumer products), electrical generation, natural gas consumption, water supply and wastewater treatment, and solid waste and were quantified with CalEEMod.

[6] Intergovernmental Panel on Climate Change, *Climate Change 2014 Mitigation of Climate Change Working Group III Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, 2014.

5 POTENTIAL IMPACTS AND MITIGATION

5.1 Greenhouse Gas Emissions

Threshold 5.1 Would the Project generate GHG emissions, either directly or indirectly, that could have a significant impact on the environment?

Short-Term Construction Greenhouse Gas Emissions

The Project would result in direct emissions of GHGs from construction. The approximate quantity of daily GHG emissions generated by construction equipment utilized to build the Project is depicted in Table 2: Construction-Related Greenhouse Gas Emissions.

Table 2: Construction-Related Greenhouse Gas Emissions

Category	$MTCO_2e$
2021 Construction	87
2022 Construction	234
Total Construction Emissions	*321*
30-Year Amortized Construction	11

Source: CalEEMod version 2016.3.2. Refer to Appendix A for model outputs.

As shown, the Project would result in the generation of approximately 321 $MTCO_2e$ over the course of construction. Construction GHG emissions are typically summed and amortized over the lifetime of the Project (assumed to be 30 years), then added to the operational emissions.[7] The amortized Project construction emissions would be 11 $MTCO_2e$ per year. Once construction is complete, the generation of these GHG emissions would cease.

Long-Term Operational Greenhouse Gas Emissions

Operational or long-term emissions occur over the life of the Project. GHG emissions would result from direct emissions such as Project generated vehicular traffic, on-site combustion of natural gas, and operation of any landscaping equipment. Operational GHG emissions would also result from indirect sources, such as off-site generation of electrical power, the energy required to convey water to, and wastewater from the Project, the emissions associated with solid waste generated from the Project, and any fugitive refrigerants from air conditioning or refrigerators.

Total GHG emissions associated with the Project are summarized in Table 3: Project Greenhouse Gas Emissions. As shown in Table 3, the Project would generate approximately 2,025 $MTCO_2e$ annually from both construction and operations and the Project. Project-related GHG emissions would not exceed the 3,000 $MTCO_2e$ per year threshold. Therefore, the proposed Project would be less than significant, and no mitigation measures are required.

[7] The project lifetime is based on the standard 30-year assumption of the South Coast Air Quality Management District (South Coast Air Quality Management District, *Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #13,* August 26, 2009).

Table 3: Project Greenhouse Gas Emissions	
Emissions Source	**$MTCO_2e$ per Year**
Construction Amortized Over 30 Years	11
Area Source	0
Energy	82
Mobile	1,926
Waste	3
Water and Wastewater	3
Total	**2,025**
Project-Level Bright Line Threshold	*3,000*
Exceeds Threshold?	**No**
Source: CalEEMod version 2016.3.2. Refer to Appendix A for model outputs.	

Mitigation Measures: No mitigation is required.

Level of Significance: Less than significant impact.

5.2 Greenhouse Gas Reduction Plan Compliance

Threshold 5.2 Would the Project conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing GHG emissions?

City of Riverside Climate Action Plan Consistency

The City follows the 2016 Economic Prosperity Action Plan and Climate Action Plan, which serves as a long-term vision for how Riverside, along with neighboring cities, can be more environmentally friendly and provides guidance for residents, City staff, and decision makers in the community on how to achieve future sustainability goals. Over the past decade, the City of Riverside has progressively demonstrated its commitment to environmental quality, social equity, and economic prosperity for all. The Riverside Restorative Growthprint (RRG) embodies the City of Riverside's commitment to be an engaged and responsible steward of its natural resources (both locally and regionally); reflects the City's dedication to address climate change by reducing greenhouse gas (GHG) emissions; and defines the City's view that actions to reduce GHG emissions are opportunities to inspire economic development through investment in urban development, infrastructure, mobility systems, and entrepreneurship.

The proposed Project includes the construction of a gas station and a convenience store in an urban area that would serve the existing surrounding uses and is compatible with the City's long-term goals and would not conflict with any applicable plan or/and policy for the purpose of reducing GHG emissions.

Regional Transportation Plan/Sustainable Communities Strategy Consistency

On September 3, 2020, SCAG's Regional Council adopted Connect SoCal (*2020 - 2045 Regional Transportation Plan/Sustainable Communities Strategy* [2020 RTP/SCS]). The RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. The RTP/SCS embodies a collective vision for the region's future and is developed with input from local governments, county transportation commissions, tribal governments, nonprofit organizations, businesses, and local stakeholders in the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. SCAG's RTP/SCS establishes GHG emissions goals for automobiles and light-duty trucks for 2020 and 2035 as well as an overall GHG target for the Project region consistent with both the target date of AB 32 and the post-2020 GHG reduction goals of Executive Orders 5-03-05 and B-30-15.

The RTP/SCS contains over 4,000 transportation projects, ranging from highway improvements, railroad grade separations, bicycle lanes, new transit hubs and replacement bridges. These future investments were included in county plans developed by the six county transportation commissions and seek to reduce traffic bottlenecks, improve the efficiency of the region's network, and expand mobility choices for everyone. The RTP/SCS is an important planning document for the region, allowing project sponsors to qualify for federal funding.

The plan accounts for operations and maintenance costs to ensure reliability, longevity, and cost effectiveness. The RTP/SCS is also supported by a combination of transportation and land use strategies that help the region achieve state GHG emissions reduction goals and Federal Clean Air Act (FCAA) requirements, preserve open space areas, improve public health and roadway safety, support our vital goods movement industry, and utilize resources more efficiently. GHG emissions resulting from development-related mobile sources are the most potent source of emissions, and therefore Project comparison to the RTP/SCS is an appropriate indicator of whether the Project would inhibit the post-2020 GHG reduction goals promulgated by the state. The Project's consistency with the RTP/SCS goals is analyzed in detail in Table 4: Regional Transportation Plan/Sustainable Communities Strategy Consistency.

Table 4: Regional Transportation Plan/Sustainable Communities Strategy Consistency

SCAG Goals		Compliance	
GOAL 1:	Encourage regional economic prosperity and global competitiveness.	N/A:	This is not a project-specific policy and is therefore not applicable. However, the Project is located on a vacant site that is surrounded by development. Development of the site would contribute to regional economic prosperity.
GOAL 2:	Improve mobility, accessibility, reliability, and travel safety for people and goods.	N/A:	This is not a transportation improvement project and is therefore not applicable.
GOAL 3:	Enhance the preservation, security, and resilience of the regional transportation system.	N/A:	This is not a transportation improvement project and is therefore not applicable.
GOAL 4:	Increase person and goods movement and travel choices within the transportation system.	N/A:	This is not a transportation improvement project and is therefore not applicable.
GOAL 5:	Reduce greenhouse gas emissions and improve air quality.	N/A:	The Project is located within an urban area in proximity to existing arterial roads and freeways. Location of the project within a developed area

Table 4: Regional Transportation Plan/Sustainable Communities Strategy Consistency			
SCAG Goals		**Compliance**	
			would reduce trip lengths, which would reduce GHG and air quality emissions.
GOAL 6:	Support healthy and equitable communities	N/A:	Health risk assessment study concluded that there would be no health impact.
GOAL 7:	Adapt to a changing climate and support an integrated regional development pattern and transportation network.	N/A:	This is not a project-specific policy and is therefore not applicable.
GOAL 8:	Leverage new transportation technologies and data-driven solutions that result in more efficient travel.	N/A:	This is not a transportation improvement project and is therefore not applicable. However, the Project is located in a developed area in proximity to existing arterial roads and freeways. Location of the Project within a developed area would reduce trip lengths, which would result in more efficient travel.
GOAL 9:	Encourage development of diverse housing types in areas that are supported by multiple transportation options.	N/A:	The Project involves development of a gas station and a convenience store and does not include housing. The Project is located within a relatively short walking distance to local bus routes.
Goal 10:	Promote conservation of natural and agricultural lands and restoration of habitats.		The Project is not located on agricultural or habitat lands.
Source: Southern California Association of Governments, *Regional Transportation Plan/Sustainable Communities Strategy (Connect SoCal)*, 2020.			

The goals stated in the RTP/SCS were used to determine consistency with the planning efforts previously stated. As shown in Table 4, the proposed Project would be consistent with the stated goals of the RTP/SCS. Therefore, the proposed Project would not result in any significant impacts or interfere with SCAG's ability to achieve the region's post-2020 mobile source GHG reduction targets.

California Air Resource Board Scoping Plan Consistency

The California State Legislature adopted AB 32 in 2006. AB 32 focuses on reducing GHGs (CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) to 1990 levels by the year 2020. Pursuant to the requirements in AB 32, CARB adopted the *Climate Change Scoping Plan* (Scoping Plan) in 2008, which outlines actions recommended to obtain that goal. The Scoping Plan provides a range of GHG reduction actions that include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as the cap-and-trade program, and an AB 32 implementation fee to fund the program. The 2017 Scoping Plan Update identifies additional GHG reduction measures necessary to achieve the 2030 target. These measures build upon those identified in the first update to the Scoping Plan in 2013. Although a number of these measures are currently established as policies and measures, some measures have not yet been formally proposed or adopted. It is expected that these actions to reduce GHG emissions will be adopted as required to achieve statewide GHG emissions targets.

As shown in Table 5: Project Consistency with Applicable CARB Scoping Plan Measures, the Project is consistent with most of the strategies, while others are not applicable to the Project. As such, impacts related to consistency with the Scoping Plan would be less than significant.

Table 5: Project Consistency with Applicable CARB Scoping Plan Measures

Scoping Plan Sector	Scoping Plan Measure	Implementing Regulations	Project Consistency
Transportation	California Cap-and-Trade Program Linked to Western Climate Initiative	Regulation for the California Cap on GHG Emissions and Market-Based Compliance Mechanism October 20, 2015 (CCR 95800)	**Consistent.** The Cap-and-Trade Program applies to large industrial sources such as power plants, refineries, and cement manufacturers. However, the regulation indirectly affects people who use the products and services produced by these industrial sources when increased cost of products or services (such as electricity and fuel) are transferred to the consumers. The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap-and-Trade Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and combustion of other fossil fuels not directly covered at large sources in the Program's first compliance period.
	California Light-Duty Vehicle GHG Standards	Pavley I 2005 Regulations to Control GHG Emissions from Motor Vehicles Pavley I 2005 Regulations to Control GHG Emissions from Motor Vehicles	**Consistent**. This measure applies to all new vehicles starting with model year 2012. The Project would not conflict with its implementation as it would apply to all new passenger vehicles purchased in California. Passenger vehicles, model year 2012 and later, associated with construction and operation of the Project would be required to comply with the Pavley emissions standards.
		2012 LEV III California GHG and Criteria Pollutant Exhaust and Evaporative Emission Standards	**Consistent.** The LEV III amendments provide reductions from new vehicles sold in California between 2017 and 2025. Passenger vehicles associated with the site would comply with LEV III standards.
	Low Carbon Fuel Standard	2009 readopted in 2015. Regulations to Achieve GHG Emission Reductions Subarticle 7. Low Carbon Fuel Standard CCR 95480	**Consistent.** This measure applies to transportation fuels utilized by vehicles in California. The Project would not conflict with implementation of this measure. Motor vehicles associated with construction and operation of the Project would utilize low carbon transportation fuels as required under this measure.
	Regional Transportation-Related GHG Targets.	SB 375. Cal. Public Resources Code §§ 21155, 21155.1, 21155.2, 21159.28	**Consistent**. The Project would provide development in the region that is consistent with the growth projections in the RTP/SCS.
	Goods Movement	Goods Movement Action Plan January 2007	**Not applicable**. The Project does not propose any changes to maritime, rail, or intermodal facilities or forms of transportation.
	Medium/Heavy-Duty Vehicle	2010 Amendments to the Truck and Bus Regulation, the Drayage Truck Regulation and the Tractor-Trailer GHG Regulation	**Consistent**. This measure applies to medium and heavy-duty vehicles that operate in the state. The Project would not conflict with implementation of this measure. Medium and heavy-duty vehicles associated with construction and operation of the Project would be required to comply with the requirements of this regulation.
	High Speed Rail	Funded under SB 862	**Not applicable**. This is a statewide measure that cannot be implemented by a project applicant or Lead Agency.

Table 5: Project Consistency with Applicable CARB Scoping Plan Measures

Scoping Plan Sector	Scoping Plan Measure	Implementing Regulations	Project Consistency
Electricity and Natural Gas	Energy Efficiency	Title 20 Appliance Efficiency Regulation	**Consistent.** The Project would not conflict with implementation of this measure. The Project would comply with the latest energy efficiency standards.
		Title 24 Part 6 Energy Efficiency Standards for Residential and Non-Residential Building	
		Title 24 Part 11 California Green Building Code Standards	
	Renewable Portfolio Standard/Renewable Electricity Standard.	2010 Regulation to Implement the Renewable Electricity Standard (33% 2020)	**Consistent**. The Project would obtain electricity from the electric utility, Riverside Public Utilities (RPU). RPU obtained roughly 30 percent of its power supply from renewable sources in 2020. Therefore, the utility would provide power when needed on site that is composed of a greater percentage of renewable sources.
	Million Solar Roofs Program	SB 350 Clean Energy and Pollution Reduction Act of 2015 (50% 2030)	
	Million Solar Roofs Program	Tax Incentive Program	**Consistent.** This measure is to increase solar throughout California, which is being done by various electricity providers and existing solar programs. The program provides incentives that are in place at the time of construction.
Water	Water	Title 24 Part 11 California Green Building Code Standards	**Consistent.** The Project would comply with the CalGreen standards, which requires a 20 percent reduction in indoor water use. The Project would also comply with the City's Water-Efficient Landscaping Regulations (Chapter 19.570 of the City of Riverside Municipal Code).
		SBX 7-7—The Water Conservation Act of 2009	
		Model Water Efficient Landscape Ordinance	
Green Buildings	Green Building Strategy	Title 24 Part 11 California Green Building Code Standards	**Consistent.** The State is to increase the use of green building practices. The Project would implement required green building strategies through existing regulation that requires the Project to comply with various CalGreen requirements. The Project includes sustainability design features that support the Green Building Strategy.
Industry	Industrial Emissions	2010 CARB Mandatory Reporting Regulation	**Not applicable.** The Mandatory Reporting Regulation requires facilities and entities with more than 10,000 $MTCO_2e$ of combustion and process emissions, all facilities belonging to certain industries, and all electric power entities to submit an annual GHG emissions data report directly to CARB. As shown above, total Project GHG emissions would not exceed 10,000 $MTCO_2e$. Therefore, this regulation would not apply.
Recycling and Waste Management	Recycling and Waste	Title 24 Part 11 California Green Building Code Standards	**Consistent.** The Project would not conflict with implementation of these measures. The Project is required to achieve the recycling mandates via compliance with the CALGreen code. The City has consistently achieved its state recycling mandates.
		AB 341 Statewide 75 Percent Diversion Goal	

Table 5: Project Consistency with Applicable CARB Scoping Plan Measures

Scoping Plan Sector	Scoping Plan Measure	Implementing Regulations	Project Consistency
Forests	Sustainable Forests	Cap and Trade Offset Projects	**Not applicable.** The Project is not located in a forested area.
High Global Warming Potential	High Global Warming Potential Gases	CARB Refrigerant Management Program CCR 95380	**Not applicable**. The regulations are applicable to refrigerants used by large air conditioning systems and large commercial and industrial refrigerators and cold storage system. The Project would not conflict with the refrigerant management regulations adopted by CARB.
Agriculture	Agriculture	Cap and Trade Offset Projects for Livestock and Rice Cultivation	**Not applicable**. No grazing, feedlot, or other agricultural activities that generate manure occur currently exist on-site or are proposed to be implemented by the Project.

Source: California Air Resources Board, *California's 2017 Climate Change Scoping Plan*, November 2017 and CARB, *Climate Change Scoping Plan*, December 2008.

Conclusion

The Project is estimated to emit approximately 2,025 $MTCO_2e$ per year directly from on-site activities and indirectly from off-site motor vehicles, see Table 3. As discussed above, the GHG emissions caused by long-term operation of the Project would not exceed the 3,000 $MTCO_2e$ per year screening threshold, and impacts would be less than significant.

As discussed above, the proposed Project would not interfere with SCAG's ability to achieve the region's post-2020 mobile source GHG reduction targets. Additionally, Project emissions would be indirectly reduced through the implementation of various Scoping Plan measures, such as the low carbon fuel standard, vehicle emissions standards, building energy efficiency standards, market-based mechanisms (such as the cap-and-trade program) and the Renewable Portfolio Standard. Therefore, the Project would not conflict with the Scoping Plan's recommended measures and, as such, would not impede implementation of the Scoping Plan. As such, impacts related to consistency with the Scoping Plan would be less than significant.

Regarding goals for 2050 under Executive Order S-3-05, at this time it is not possible to quantify the emissions savings from future regulatory measures, as they have not yet been developed; nevertheless, it can be anticipated that operation of the Project would benefit from implementation of current and potential future regulations (e.g., improvements in vehicle emissions, SB 100/renewable electricity portfolio improvements, etc.) enacted to meet an 80 percent reduction below 1990 levels by 2050.

The Project would not conflict with any applicable plan, policy, or regulation of an agency adopted for reducing the emissions of GHGs because the Project would generate low levels of GHGs, and would not impede implementation of the Scoping Plan, or conflict with the policies of the Scoping Plan or any other GHG reduction plan. Therefore, the impacts would be less than significant.

5.3 Cumulative Setting, Impacts, and Mitigation Measures

Cumulative Setting

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and TACs, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects

have relatively short atmospheric lifetimes (about 1 day), GHGs have much longer atmospheric lifetimes of 1 year to several thousand years that allow them to be dispersed around the globe.

Cumulative Impacts

It is generally the case that an individual project of this size and nature is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory. GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective. The additive effect of project-related GHGs would not result in a reasonably foreseeable cumulatively considerable contribution to global climate change. In addition, the Project as well as other cumulative related projects would also be subject to all applicable regulatory requirements, which would further reduce GHG emissions. As shown in above tables, the Project would not conflict with the City's Climate Action Plan, the RTP/SCS, or the CARB Scoping Plan. Therefore, the Project's cumulative contribution of GHG emissions would be less than significant and the Project's cumulative GHG impacts would also be less than cumulatively considerable.

Mitigation Measures: No mitigation is required.

Level of Significance: Less than significant impact.

6 REFERENCES

1. California Air Resources Board, *California's 2017 Climate Change Scoping Plan,* 2017.
2. City of Riverside, *General Plan and Supporting Documents EIR, Section 5.3-Air Quality,* November 2007.
3. City of Riverside, *Economic Prosperity Action Plan and Climate Action Plan*, January 2016.
4. Intergovernmental Panel on Climate Change, *Climate Change 2007: The Physical Science Basis*, 2007.
5. Intergovernmental Panel on Climate Change, *Climate Change 2013: The Physical Science Basis, Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, 2013.
6. National Research Council, *Advancing the Science of Climate Change*, 2010.
7. State of California, *Code of Regulations Section 15065.5a*, 2018.
8. Southern California Association of Governments, *2020 - 2045 Regional Transportation Plan/Sustainable Communities Strategy (Connect SoCal)*, 2020.
9. South Coast Air Quality Management District, *Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #13*, 2009.
10. Trames Solutions Inc., *Arlington at Monroe Traffic Impact Analysis Project,* January 2020.
11. U.S. EPA, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2016*, 2018.
12. U.S. EPA, *Methane and Nitrous Oxide Emission from Natural Sources*, 2010.
13. U.S. EPA, *Overview of Greenhouse Gases*, 2018.
14. Woodard Group, *Conceptual Grading Plan for 6892 Arlington Avenue,* January 2021.

Appendix A

Greenhouse Gas Emissions Data

Gas Station and 7-Eleven Store

Riverside-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	50.77	1000sqft	1.17	50,768.00	0
Fast Food Restaurant w/o Drive Thru	1.12	1000sqft	0.03	1,120.00	0
Convenience Market With Gas Pumps	12.00	Pump	0.11	4,740.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.4	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2022
Utility Company	Riverside Public Utilities				
CO2 Intensity (lb/MWhr)	1092.34	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Adjusted per the RPU 2019 Power Content Label.

Land Use - Site acreage

Construction Phase - Anticipated construction schedule

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - No Demolition phase

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Trips and VMT -

Grading -

Vehicle Trips - Per traffic study

Energy Use -

Construction Off-road Equipment Mitigation - Rule 403

Water Mitigation -

Waste Mitigation -

Mobile Land Use Mitigation -

Gas Station and 7-Eleven Store - Riverside-South Coast County, Annual

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	200.00	260.00
tblConstructionPhase	NumDays	20.00	0.00
tblConstructionPhase	NumDays	4.00	15.00
tblConstructionPhase	NumDays	2.00	15.00
tblLandUse	LandUseSquareFeet	50,770.00	50,768.00
tblLandUse	LandUseSquareFeet	1,694.10	4,740.00
tblLandUse	LotAcreage	0.04	0.11
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	1325.65	1092.34
tblVehicleTrips	ST_TR	204.47	322.50
tblVehicleTrips	ST_TR	696.00	346.00
tblVehicleTrips	SU_TR	166.88	322.50
tblVehicleTrips	SU_TR	500.00	346.00
tblVehicleTrips	WD_TR	542.60	322.50
tblVehicleTrips	WD_TR	716.00	346.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.0779	0.6602	0.5077	1.0200e-003	0.0907	0.0305	0.1211	0.0439	0.0289	0.0728	0.0000	86.6383	86.6383	0.0167	0.0000	87.0562
2022	0.2185	1.3898	1.4236	2.7700e-003	0.0323	0.0619	0.0942	8.7000e-003	0.0597	0.0684	0.0000	233.2057	233.2057	0.0359	0.0000	234.1043
Maximum	**0.2185**	**1.3898**	**1.4236**	**2.7700e-003**	**0.0907**	**0.0619**	**0.1211**	**0.0439**	**0.0597**	**0.0728**	**0.0000**	**233.2057**	**233.2057**	**0.0359**	**0.0000**	**234.1043**

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	0.0779	0.6602	0.5077	1.0200e-003	0.0441	0.0305	0.0746	0.0202	0.0289	0.0492	0.0000	86.6382	86.6382	0.0167	0.0000	87.0562
2022	0.2185	1.3898	1.4236	2.7700e-003	0.0306	0.0619	0.0926	8.3000e-003	0.0597	0.0680	0.0000	233.2055	233.2055	0.0359	0.0000	234.1040
Maximum	**0.2185**	**1.3898**	**1.4236**	**2.7700e-003**	**0.0441**	**0.0619**	**0.0926**	**0.0202**	**0.0597**	**0.0680**	**0.0000**	**233.2055**	**233.2055**	**0.0359**	**0.0000**	**234.1040**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**39.17**	**0.00**	**22.36**	**45.77**	**0.00**	**17.03**	**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	9-1-2021	11-30-2021	0.5485	0.5485
2	12-1-2021	2-28-2022	0.5007	0.5007
3	3-1-2022	5-31-2022	0.4966	0.4966
4	6-1-2022	8-31-2022	0.4966	0.4966
5	9-1-2022	9-30-2022	0.1619	0.1619
		Highest	0.5485	0.5485

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	0.0280	1.0000e-005	8.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5900e-003	1.5900e-003	0.0000	0.0000	1.6900e-003
Energy	1.7100e-003	0.0155	0.0130	9.0000e-005		1.1800e-003	1.1800e-003		1.1800e-003	1.1800e-003	0.0000	81.7190	81.7190	2.0400e-003	6.7000e-004	81.9686
Mobile	0.8760	6.9530	5.6735	0.0214	1.1498	0.0142	1.1640	0.3081	0.0133	0.3213	0.0000	2,001.9264	2,001.9264	0.2026	0.0000	2,006.9906
Waste						0.0000	0.0000		0.0000	0.0000	2.6186	0.0000	2.6186	0.1548	0.0000	6.4874
Water						0.0000	0.0000		0.0000	0.0000	0.1477	3.5457	3.6934	0.0153	3.8000e-004	4.1874
Total	**0.9056**	**6.9685**	**5.6874**	**0.0215**	**1.1498**	**0.0154**	**1.1652**	**0.3081**	**0.0145**	**0.3225**	**2.7662**	**2,087.1926**	**2,089.9589**	**0.3746**	**1.0500e-003**	**2,099.6356**

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	0.0280	1.0000e-005	8.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5900e-003	1.5900e-003	0.0000	0.0000	1.6900e-003
Energy	1.7100e-003	0.0155	0.0130	9.0000e-005		1.1800e-003	1.1800e-003		1.1800e-003	1.1800e-003	0.0000	81.7190	81.7190	2.0400e-003	6.7000e-004	81.9686
Mobile	0.8697	6.8880	5.5015	0.0206	1.0726	0.0136	1.0862	0.2874	0.0127	0.3001	0.0000	1,920.8279	1,920.8279	0.2004	0.0000	1,925.8378
Waste						0.0000	0.0000		0.0000	0.0000	1.3093	0.0000	1.3093	0.0774	0.0000	3.2437
Water						0.0000	0.0000		0.0000	0.0000	0.1181	2.9120	3.0301	0.0122	3.0000e-004	3.4255
Total	**0.8993**	**6.9036**	**5.5154**	**0.0207**	**1.0726**	**0.0148**	**1.0873**	**0.2874**	**0.0139**	**0.3012**	**1.4274**	**2,005.4605**	**2,006.8879**	**0.2920**	**9.7000e-004**	**2,014.4773**

	ROG	NOx	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	**0.70**	**0.93**	**3.02**	**4.04**	**6.72**	**4.03**	**6.68**	**6.72**	**3.94**	**6.60**	**48.40**	**3.92**	**3.97**	**22.05**	**7.62**	**4.06**

3.0 Construction Detail

Construction Phase

Gas Station and 7-Eleven Store - Riverside-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	8/31/2021	5	0	
2	Site Preparation	Site Preparation	9/1/2021	9/21/2021	5	15	
3	Grading	Grading	9/22/2021	10/12/2021	5	15	
4	Building Construction	Building Construction	10/13/2021	10/11/2022	5	260	
5	Paving	Paving	10/12/2022	10/25/2022	5	10	
6	Architectural Coating	Architectural Coating	10/26/2022	11/8/2022	5	10	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 5.63

Acres of Paving: 1.17

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 8,790; Non-Residential Outdoor: 2,930; Striped Parking Area: 3,046 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	0	0.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	23.00	9.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 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					
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

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

3.2 Demolition - 2021

Mitigated Construction Off-Site

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

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0435	0.0000	0.0435	0.0222	0.0000	0.0222	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0117	0.1307	0.0567	1.3000e-004		5.7400e-003	5.7400e-003		5.2800e-003	5.2800e-003	0.0000	11.3388	11.3388	3.6700e-003	0.0000	11.4305
Total	**0.0117**	**0.1307**	**0.0567**	**1.3000e-004**	**0.0435**	**5.7400e-003**	**0.0492**	**0.0222**	**5.2800e-003**	**0.0274**	**0.0000**	**11.3388**	**11.3388**	**3.6700e-003**	**0.0000**	**11.4305**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-004	1.7000e-004	1.8900e-003	1.0000e-005	6.6000e-004	0.0000	6.6000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.5333	0.5333	1.0000e-005	0.0000	0.5336
Total	**2.6000e-004**	**1.7000e-004**	**1.8900e-003**	**1.0000e-005**	**6.6000e-004**	**0.0000**	**6.6000e-004**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**0.5333**	**0.5333**	**1.0000e-005**	**0.0000**	**0.5336**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0186	0.0000	0.0186	9.4700e-003	0.0000	9.4700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0117	0.1307	0.0567	1.3000e-004		5.7400e-003	5.7400e-003		5.2800e-003	5.2800e-003	0.0000	11.3388	11.3388	3.6700e-003	0.0000	11.4305
Total	**0.0117**	**0.1307**	**0.0567**	**1.3000e-004**	**0.0186**	**5.7400e-003**	**0.0243**	**9.4700e-003**	**5.2800e-003**	**0.0148**	**0.0000**	**11.3388**	**11.3388**	**3.6700e-003**	**0.0000**	**11.4305**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-004	1.7000e-004	1.8900e-003	1.0000e-005	6.3000e-004	0.0000	6.3000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5333	0.5333	1.0000e-005	0.0000	0.5336
Total	**2.6000e-004**	**1.7000e-004**	**1.8900e-003**	**1.0000e-005**	**6.3000e-004**	**0.0000**	**6.3000e-004**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**0.5333**	**0.5333**	**1.0000e-005**	**0.0000**	**0.5336**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0369	0.0000	0.0369	0.0189	0.0000	0.0189	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6600e-003	0.1075	0.0475	1.1000e-004		4.7800e-003	4.7800e-003		4.4000e-003	4.4000e-003	0.0000	9.2877	9.2877	3.0000e-003	0.0000	9.3628
Total	**9.6600e-003**	**0.1075**	**0.0475**	**1.1000e-004**	**0.0369**	**4.7800e-003**	**0.0416**	**0.0189**	**4.4000e-003**	**0.0233**	**0.0000**	**9.2877**	**9.2877**	**3.0000e-003**	**0.0000**	**9.3628**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-004	1.7000e-004	1.8900e-003	1.0000e-005	6.6000e-004	0.0000	6.6000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.5333	0.5333	1.0000e-005	0.0000	0.5336
Total	**2.6000e-004**	**1.7000e-004**	**1.8900e-003**	**1.0000e-005**	**6.6000e-004**	**0.0000**	**6.6000e-004**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**0.5333**	**0.5333**	**1.0000e-005**	**0.0000**	**0.5336**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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					0.0158	0.0000	0.0158	8.1000e-003	0.0000	8.1000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.6600e-003	0.1075	0.0475	1.1000e-004		4.7800e-003	4.7800e-003		4.4000e-003	4.4000e-003	0.0000	9.2877	9.2877	3.0000e-003	0.0000	9.3628
Total	**9.6600e-003**	**0.1075**	**0.0475**	**1.1000e-004**	**0.0158**	**4.7800e-003**	**0.0205**	**8.1000e-003**	**4.4000e-003**	**0.0125**	**0.0000**	**9.2877**	**9.2877**	**3.0000e-003**	**0.0000**	**9.3628**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-004	1.7000e-004	1.8900e-003	1.0000e-005	6.3000e-004	0.0000	6.3000e-004	1.7000e-004	0.0000	1.7000e-004	0.0000	0.5333	0.5333	1.0000e-005	0.0000	0.5336
Total	**2.6000e-004**	**1.7000e-004**	**1.8900e-003**	**1.0000e-005**	**6.3000e-004**	**0.0000**	**6.3000e-004**	**1.7000e-004**	**0.0000**	**1.7000e-004**	**0.0000**	**0.5333**	**0.5333**	**1.0000e-005**	**0.0000**	**0.5336**

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	0.0526	0.3955	0.3741	6.4000e-004		0.0199	0.0199		0.0192	0.0192	0.0000	52.6488	52.6488	9.4000e-003	0.0000	52.8838
Total	**0.0526**	**0.3955**	**0.3741**	**6.4000e-004**		**0.0199**	**0.0199**		**0.0192**	**0.0192**	**0.0000**	**52.6488**	**52.6488**	**9.4000e-003**	**0.0000**	**52.8838**

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	6.2000e-004	0.0243	4.6800e-003	7.0000e-005	1.6500e-003	5.0000e-005	1.6900e-003	4.8000e-004	4.0000e-005	5.2000e-004	0.0000	6.3677	6.3677	4.9000e-004	0.0000	6.3798
Worker	2.8600e-003	1.9300e-003	0.0210	7.0000e-005	7.3300e-003	4.0000e-005	7.3800e-003	1.9500e-003	4.0000e-005	1.9900e-003	0.0000	5.9286	5.9286	1.4000e-004	0.0000	5.9321
Total	**3.4800e-003**	**0.0263**	**0.0257**	**1.4000e-004**	**8.9800e-003**	**9.0000e-005**	**9.0700e-003**	**2.4300e-003**	**8.0000e-005**	**2.5100e-003**	**0.0000**	**12.2963**	**12.2963**	**6.3000e-004**	**0.0000**	**12.3119**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0526	0.3955	0.3741	6.4000e-004		0.0199	0.0199		0.0192	0.0192	0.0000	52.6488	52.6488	9.4000e-003	0.0000	52.8837
Total	**0.0526**	**0.3955**	**0.3741**	**6.4000e-004**		**0.0199**	**0.0199**		**0.0192**	**0.0192**	**0.0000**	**52.6488**	**52.6488**	**9.4000e-003**	**0.0000**	**52.8837**

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	6.2000e-004	0.0243	4.6800e-003	7.0000e-005	1.5800e-003	5.0000e-005	1.6200e-003	4.6000e-004	4.0000e-005	5.0000e-004	0.0000	6.3677	6.3677	4.9000e-004	0.0000	6.3798
Worker	2.8600e-003	1.9300e-003	0.0210	7.0000e-005	6.9500e-003	4.0000e-005	6.9900e-003	1.8500e-003	4.0000e-005	1.8900e-003	0.0000	5.9286	5.9286	1.4000e-004	0.0000	5.9321
Total	**3.4800e-003**	**0.0263**	**0.0257**	**1.4000e-004**	**8.5300e-003**	**9.0000e-005**	**8.6100e-003**	**2.3100e-003**	**8.0000e-005**	**2.3900e-003**	**0.0000**	**12.2963**	**12.2963**	**6.3000e-004**	**0.0000**	**12.3119**

3.5 Building 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	0.1665	1.2628	1.2854	2.2300e-003		0.0595	0.0595		0.0575	0.0575	0.0000	183.3927	183.3927	0.0319	0.0000	184.1912
Total	**0.1665**	**1.2628**	**1.2854**	**2.2300e-003**		**0.0595**	**0.0595**		**0.0575**	**0.0575**	**0.0000**	**183.3927**	**183.3927**	**0.0319**	**0.0000**	**184.1912**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0200e-003	0.0799	0.0152	2.3000e-004	5.7400e-003	1.4000e-004	5.8800e-003	1.6600e-003	1.3000e-004	1.7900e-003	0.0000	21.9864	21.9864	1.6000e-003	0.0000	22.0265
Worker	9.3300e-003	6.0400e-003	0.0674	2.2000e-004	0.0255	1.5000e-004	0.0257	6.7800e-003	1.4000e-004	6.9200e-003	0.0000	19.8944	19.8944	4.3000e-004	0.0000	19.9052
Total	**0.0114**	**0.0859**	**0.0826**	**4.5000e-004**	**0.0313**	**2.9000e-004**	**0.0316**	**8.4400e-003**	**2.7000e-004**	**8.7100e-003**	**0.0000**	**41.8808**	**41.8808**	**2.0300e-003**	**0.0000**	**41.9317**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.1665	1.2628	1.2854	2.2300e-003		0.0595	0.0595		0.0575	0.0575	0.0000	183.3925	183.3925	0.0319	0.0000	184.1910
Total	**0.1665**	**1.2628**	**1.2854**	**2.2300e-003**		**0.0595**	**0.0595**		**0.0575**	**0.0575**	**0.0000**	**183.3925**	**183.3925**	**0.0319**	**0.0000**	**184.1910**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0200e-003	0.0799	0.0152	2.3000e-004	5.5000e-003	1.4000e-004	5.6300e-003	1.6000e-003	1.3000e-004	1.7300e-003	0.0000	21.9864	21.9864	1.6000e-003	0.0000	22.0265
Worker	9.3300e-003	6.0400e-003	0.0674	2.2000e-004	0.0242	1.5000e-004	0.0244	6.4500e-003	1.4000e-004	6.5900e-003	0.0000	19.8944	19.8944	4.3000e-004	0.0000	19.9052
Total	**0.0114**	**0.0859**	**0.0826**	**4.5000e-004**	**0.0297**	**2.9000e-004**	**0.0300**	**8.0500e-003**	**2.7000e-004**	**8.3200e-003**	**0.0000**	**41.8808**	**41.8808**	**2.0300e-003**	**0.0000**	**41.9317**

3.6 Paving - 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	3.4400e-003	0.0339	0.0440	7.0000e-005		1.7400e-003	1.7400e-003		1.6000e-003	1.6000e-003	0.0000	5.8848	5.8848	1.8700e-003	0.0000	5.9315
Paving	1.5300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.9700e-003**	**0.0339**	**0.0440**	**7.0000e-005**		**1.7400e-003**	**1.7400e-003**		**1.6000e-003**	**1.6000e-003**	**0.0000**	**5.8848**	**5.8848**	**1.8700e-003**	**0.0000**	**5.9315**

3.6 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-004	1.7000e-004	1.8800e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5567	0.5567	1.0000e-005	0.0000	0.5570
Total	**2.6000e-004**	**1.7000e-004**	**1.8800e-003**	**1.0000e-005**	**7.1000e-004**	**0.0000**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5567**	**0.5567**	**1.0000e-005**	**0.0000**	**0.5570**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.4400e-003	0.0339	0.0440	7.0000e-005		1.7400e-003	1.7400e-003		1.6000e-003	1.6000e-003	0.0000	5.8848	5.8848	1.8700e-003	0.0000	5.9314
Paving	1.5300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.9700e-003**	**0.0339**	**0.0440**	**7.0000e-005**		**1.7400e-003**	**1.7400e-003**		**1.6000e-003**	**1.6000e-003**	**0.0000**	**5.8848**	**5.8848**	**1.8700e-003**	**0.0000**	**5.9314**

3.6 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-004	1.7000e-004	1.8800e-003	1.0000e-005	6.8000e-004	0.0000	6.8000e-004	1.8000e-004	0.0000	1.8000e-004	0.0000	0.5567	0.5567	1.0000e-005	0.0000	0.5570
Total	**2.6000e-004**	**1.7000e-004**	**1.8800e-003**	**1.0000e-005**	**6.8000e-004**	**0.0000**	**6.8000e-004**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**0.5567**	**0.5567**	**1.0000e-005**	**0.0000**	**0.5570**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0342					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0200e-003	7.0400e-003	9.0700e-003	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2787
Total	**0.0352**	**7.0400e-003**	**9.0700e-003**	**1.0000e-005**		**4.1000e-004**	**4.1000e-004**		**4.1000e-004**	**4.1000e-004**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2787**

3.7 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	6.0000e-005	7.2000e-004	0.0000	2.7000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2141	0.2141	0.0000	0.0000	0.2142
Total	**1.0000e-004**	**6.0000e-005**	**7.2000e-004**	**0.0000**	**2.7000e-004**	**0.0000**	**2.8000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2141**	**0.2141**	**0.0000**	**0.0000**	**0.2142**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.0342					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0200e-003	7.0400e-003	9.0700e-003	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2787
Total	**0.0352**	**7.0400e-003**	**9.0700e-003**	**1.0000e-005**		**4.1000e-004**	**4.1000e-004**		**4.1000e-004**	**4.1000e-004**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2787**

3.7 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	6.0000e-005	7.2000e-004	0.0000	2.6000e-004	0.0000	2.6000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2141	0.2141	0.0000	0.0000	0.2142
Total	**1.0000e-004**	**6.0000e-005**	**7.2000e-004**	**0.0000**	**2.6000e-004**	**0.0000**	**2.6000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2141**	**0.2141**	**0.0000**	**0.0000**	**0.2142**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Diversity

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 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	0.8697	6.8880	5.5015	0.0206	1.0726	0.0136	1.0862	0.2874	0.0127	0.3001	0.0000	1,920.8279	1,920.8279	0.2004	0.0000	1,925.8378
Unmitigated	0.8760	6.9530	5.6735	0.0214	1.1498	0.0142	1.1640	0.3081	0.0133	0.3213	0.0000	2,001.9264	2,001.9264	0.2026	0.0000	2,006.9906

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market With Gas Pumps	3,870.00	3,870.00	3870.00	2,309,905	2,154,691
Fast Food Restaurant w/o Drive Thru	387.52	387.52	387.52	701,816	654,657
Parking Lot	0.00	0.00	0.00		
Total	4,257.52	4,257.52	4,257.52	3,011,721	2,809,348

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market With Gas	16.60	8.40	6.90	0.80	80.20	19.00	14	21	65
Fast Food Restaurant w/o Drive	16.60	8.40	6.90	1.50	79.50	19.00	51	37	12
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
Convenience Market With Gas Pumps	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965
Fast Food Restaurant w/o Drive Thru	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965
Parking Lot	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	64.8147	64.8147	1.7200e-003	3.6000e-004	64.9638
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	64.8147	64.8147	1.7200e-003	3.6000e-004	64.9638
NaturalGas Mitigated	1.7100e-003	0.0155	0.0130	9.0000e-005		1.1800e-003	1.1800e-003		1.1800e-003	1.1800e-003	0.0000	16.9044	16.9044	3.2000e-004	3.1000e-004	17.0048
NaturalGas Unmitigated	1.7100e-003	0.0155	0.0130	9.0000e-005		1.1800e-003	1.1800e-003		1.1800e-003	1.1800e-003	0.0000	16.9044	16.9044	3.2000e-004	3.1000e-004	17.0048

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market With Gas Pumps	10522.8	6.0000e-005	5.2000e-004	4.3000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5615	0.5615	1.0000e-005	1.0000e-005	0.5649
Fast Food Restaurant w/o Drive Thru	306253	1.6500e-003	0.0150	0.0126	9.0000e-005		1.1400e-003	1.1400e-003		1.1400e-003	1.1400e-003	0.0000	16.3428	16.3428	3.1000e-004	3.0000e-004	16.4399
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		**1.7100e-003**	**0.0155**	**0.0130**	**9.0000e-005**		**1.1800e-003**	**1.1800e-003**		**1.1800e-003**	**1.1800e-003**	**0.0000**	**16.9044**	**16.9044**	**3.2000e-004**	**3.1000e-004**	**17.0048**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market With Gas Pumps	10522.8	6.0000e-005	5.2000e-004	4.3000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5615	0.5615	1.0000e-005	1.0000e-005	0.5649
Fast Food Restaurant w/o Drive Thru	306253	1.6500e-003	0.0150	0.0126	9.0000e-005		1.1400e-003	1.1400e-003		1.1400e-003	1.1400e-003	0.0000	16.3428	16.3428	3.1000e-004	3.0000e-004	16.4399
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		**1.7100e-003**	**0.0155**	**0.0130**	**9.0000e-005**		**1.1800e-003**	**1.1800e-003**		**1.1800e-003**	**1.1800e-003**	**0.0000**	**16.9044**	**16.9044**	**3.2000e-004**	**3.1000e-004**	**17.0048**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market With Gas Pumps	59866.2	29.6623	7.9000e-004	1.6000e-004	29.7306
Fast Food Restaurant w/o Drive Thru	53177.6	26.3483	7.0000e-004	1.4000e-004	26.4089
Parking Lot	17768.8	8.8040	2.3000e-004	5.0000e-005	8.8243
Total		**64.8146**	**1.7200e-003**	**3.5000e-004**	**64.9638**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market With Gas Pumps	59866.2	29.6623	7.9000e-004	1.6000e-004	29.7306
Fast Food Restaurant w/o Drive Thru	53177.6	26.3483	7.0000e-004	1.4000e-004	26.4089
Parking Lot	17768.8	8.8040	2.3000e-004	5.0000e-005	8.8243
Total		**64.8146**	**1.7200e-003**	**3.5000e-004**	**64.9638**

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	0.0280	1.0000e-005	8.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5900e-003	1.5900e-003	0.0000	0.0000	1.6900e-003
Unmitigated	0.0280	1.0000e-005	8.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5900e-003	1.5900e-003	0.0000	0.0000	1.6900e-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	3.4200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0245					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.0000e-005	1.0000e-005	8.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5900e-003	1.5900e-003	0.0000	0.0000	1.6900e-003
Total	**0.0280**	**1.0000e-005**	**8.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.5900e-003**	**1.5900e-003**	**0.0000**	**0.0000**	**1.6900e-003**

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	3.4200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0245					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.0000e-005	1.0000e-005	8.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.5900e-003	1.5900e-003	0.0000	0.0000	1.6900e-003
Total	**0.0280**	**1.0000e-005**	**8.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.5900e-003**	**1.5900e-003**	**0.0000**	**0.0000**	**1.6900e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	3.0301	0.0122	3.0000e-004	3.4255
Unmitigated	3.6934	0.0153	3.8000e-004	4.1874

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market With Gas Pumps	0.125486 / 0.0769109	1.2728	4.1200e-003	1.0000e-004	1.4066
Fast Food Restaurant w/o Drive Thru	0.339958 / 0.0216994	2.4206	0.0111	2.7000e-004	2.7808
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**3.6934**	**0.0153**	**3.7000e-004**	**4.1874**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market With Gas Pumps	0.100389 / 0.0722193	1.0771	3.3000e-003	8.0000e-005	1.1843
Fast Food Restaurant w/o Drive Thru	0.271966 / 0.0203758	1.9531	8.9100e-003	2.2000e-004	2.2413
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**3.0301**	**0.0122**	**3.0000e-004**	**3.4255**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.3093	0.0774	0.0000	3.2437
Unmitigated	2.6186	0.1548	0.0000	6.4874

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	12.9	2.6186	0.1548	0.0000	6.4874
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**2.6186**	**0.1548**	**0.0000**	**6.4874**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Fast Food Restaurant w/o Drive Thru	6.45	1.3093	0.0774	0.0000	3.2437
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**1.3093**	**0.0774**	**0.0000**	**3.2437**

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