Air Quality Analysis for the Temescal Commercial Project Riverside County, California

Prepared for
MCP Industries LLC
23835 Temescal Canyon Road
Corona, CA 92883
Contact: Mark Freed

Prepared by
RECON Environmental, Inc.
3111 Camino del Rio North, Suite 600
San Diego, CA 92108
P 619.308.9333

RECON Number 8622
February 7, 2024

Jessica Fleming, Senior Environmental Specialist
Noise, Air Quality, and Greenhouse Gas

TABLE OF CONTENTS

Acronyms and Abbreviations iii
Executive Summary 1
1.0 Introduction 2
2.0 Project Description 2
3.0 Regulatory Framework 7
3.1 Federal Regulations 7
3.2 State Regulations 10
3.3 Local Regulations 12
4.0 Environmental Setting 16
4.1 Site Conditions 16
4.2 Regional Setting and Climate 16
4.3 Existing Air Quality 17
5.0 Significance Criteria 18
5.1 Regional Significance Thresholds 18
5.2 Localized Significance Thresholds 19
6.0 Air Quality Calculations 19
6.1 Construction Regional Emissions 20
6.2 Operational Regional Emissions 22
6.3 Localized Significance Thresholds 24
6.4 Impact Analysis 27
7.0 Conclusions 32
8.0 References Cited 33

FIGURES

1: Regional Location 4
2: Project Location on Aerial Photograph 5
3: Site Plan 6

TABLE OF CONTENTS (cont.)

TABLES

1: Ambient Air Quality Standards 8
2: Summary of Air Quality Measurements Recorded at the Lake Elsinore Air Quality Monitoring Station 17
3: SCAQMD Air Quality Significance Thresholds – Mass Daily Thresholds 19
4: Construction Phases and Equipment 21
5: Maximum Daily Construction Emissions 22
6: Project Trip Generation 23
7: Summary of Project Operational Emissions (pounds per day) 24
8: Maximum Disturbed Acres 26
9: Localized Construction Emissions 26
10: Localized Operations Emissions 27

ATTACHMENTS

1: CalEEMod Output
2: Construction HRA/AERSCREEN Output

Acronyms and Abbreviations

°F	degrees Fahrenheit
µg/m^3	micrograms per cubic meter
2022 AQMP	South Coast Air Quality Management District's 2022 Air Quality Management Plan
AAQS	Ambient Air Quality Standards
AB	Assembly Bill
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CO	carbon monoxide
CVAG	Coachella Valley Association of Governments
DPM	diesel particulate matter
HQ	hazard quotient
I-15	Interstate 15
LST	Localized Significance Threshold
MDAQMD	Mojave Desert Air Quality Management District
mg/kg/d	milligrams per kilogram body weight per day
NAAQS	National Ambient Air Quality Standards
NO_2	nitrogen dioxide
NO_X	oxides of nitrogen
O_3	ozone
OEHHA	Office of Environmental Health Hazard Assessment
Pb	lead
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
project	Temescal Commercial Project
ROG	reactive organic gases
SCAG	Southern California Association of Government
SCAQMD	South Coast Air Quality Management District
SIP	State Implementation Plan
SO_2	sulfur dioxide
SoCAB	South Coast Air Basin
SO_X	oxides of sulfur
SRA	Source Receptor Areas
TAC	toxic air contaminant
U.S. EPA	U.S. Environmental Protection Agency
USC	United States Code
VOC	volatile organic compounds
WRCOG	Western Riverside Council of Governments

Executive Summary

The Temescal Commercial Project (project) is located at 23835 Temescal Canyon Road in unincorporated Riverside County, California. The project site is located west of Interstate 15 (I-15) freeway, and is bounded by Temescal Canyon Road to the east and Lawson Road to the west. The project proposes the construction of a 188,000-square-foot building on one parcel and three sheet-graded parcels fronting on Temescal Canyon Road for future retail/restaurant ground lease building pads. The new proposed building would include a clay-related commercial business and museum. The operations of the business would be enclosed inside of the new building with limited exterior yard use in screened and secured areas. The future retail/restaurant uses would include a 2,500-square-foot coffee shop with drive-through, a 2,900-square-foot fast casual restaurant, and a 5,000-square-foot fast food restaurant with drive-through.

This analysis evaluates the significance of potential air quality impacts that may be generated by the project in accordance with the California Environmental Quality Act, and guidance from the South Coast Air Quality Management District (SCAQMD). The project was evaluated to determine if it would (1) be inconsistent with the applicable air quality plan, (2) result in cumulative impacts to air quality, (3) impact sensitive receptors, or (4) expose a substantial number of people to objectionable odors.

The SCAQMD prepared the 2022 Air Quality Management Plan (2022 AQMP), which represents its contribution to the State Implementation Plan, to outline the district's strategy for achieving attainment of federal and state Ambient Air Quality Standards (AAQS). The 2022 AQMP provides an overview of air quality and sources of air pollution and identifies the pollution-control measures needed to meet clean air standards. As discussed in this analysis, emissions associated with the project are accounted for in the 2022 AQMP. Therefore, the project would not result in an exceedance of the growth forecasting used to develop the 2022 AQMP. Additionally, the project would not result in an air quality violation. Therefore, the project would not conflict with or obstruct the implementation of the 2022 AQMP or applicable portions of the State Implementation Plan, and impacts would be less than significant.

As calculated in this analysis, project construction and operation would not exceed the SCAQMD's thresholds of significance. Therefore, the project would not result in regional emissions that would exceed the National AAQS or California AAQS or contribute to existing violations, and impacts would be less than significant.

On-site emissions during construction and operation would be less than the SCAQMD localized significance thresholds. Project construction would not result in the exposure of sensitive receptors to significant levels of diesel particulate matter that could result in excess cancer risks. The project would not introduce site sensitive land uses within 500 feet of a freeway or urban roads with 100,000 or more vehicles per day and would not result in the creation of a carbon monoxide (CO) hot spot. Therefore, construction and operation of the project would not expose sensitive receptors to substantial pollutant concentrations, and impacts would be less than significant.

During construction, potential odor sources would be associated with construction equipment; however, exposure to odors associated with project construction would be short term and temporary in nature. Operation of the project would not include any uses that would generate substantial odors.

Therefore, the project would not generate odors adversely affecting a substantial number of people, and impacts would be less than significant.

1.0 Introduction

This report evaluates the significance of potential air quality impacts that may be generated by the proposed Temescal Commercial Project (project). This report characterizes existing conditions at the project site and in the region, identifies applicable rules and regulations, and assesses impacts to air quality from construction and operation of the project. The significance of potential air quality impacts is assessed based on the air quality thresholds defined by the regional air quality management district, the South Coast Air Quality Management District (SCAQMD).

Air pollution affects all southern Californians. Effects can include increased respiratory infections, increased discomfort, missed days from work and school, and increased mortality. Polluted air also damages agriculture and our natural environment.

The state of California is divided geographically into 15 air basins for managing the air resources of the state on a regional basis. Areas within each air basin are considered to share the same air masses and therefore are expected to have similar ambient air quality. The project site is located within the South Coast Air Basin (SoCAB). The portion of the SoCAB covering the project site is currently classified as a federal non-attainment area for ozone (O_3) and particulate matter less than 2.5 microns ($PM_{2.5}$), and a state non-attainment area for ozone, particulate matter less than 10 microns (PM_{10}) and $PM_{2.5}$.

Air quality impacts can result from the construction and operation of the project. Construction impacts are short term and result from fugitive dust, equipment exhaust, and indirect effects associated with construction workers and deliveries. Operational impacts can occur on two levels: regional impacts resulting from growth-inducing development, or local hot spot effects stemming from sensitive receivers being placed close to highly congested roadways. In the case of this project, operational impacts would be primarily due to emissions to the SoCAB from mobile sources associated with vehicular travel along the roadways surrounding the project site.

The analysis of impacts is based on federal and state Ambient Air Quality Standards (AAQS) and is assessed in accordance with the guidelines, policies, and standards established by the SCAQMD. Project compatibility with the adopted air quality plan for the area is also assessed. Measures are recommended, as required, to reduce potentially significant impacts.

2.0 Project Description

The project is located at 23835 Temescal Canyon Road in unincorporated Riverside County, California. The project site is located west of Interstate 15 (I-15) freeway, and is bounded by Temescal Canyon Road to the east and Lawson Road to the west. The project site is abutted by vacant land to the north, west, and south, and a commercial center with gas station to the west. Single-family residential uses are located to the southwest, west, and northwest. The 29.23-acre project site is

currently partially undeveloped and partially developed with Mission Clay Products. Figure 1 shows the regional location. Figure 2 shows an aerial photograph of the project site and vicinity.

The project proposes the subdivision of the three existing parcels (283-180-020, 283-180-021, and 283-180-002) to create four new lots to accommodate light industrial/office and commercial uses onsite. Four entitlement actions are being processed concurrently in support of the proposed development. The Applicant has submitted a Tentative Tract Map, General Plan Amendment application, a Zone Change application, and a Plot Plan, accordingly.

The project proposes the construction of a 188,000-square-foot building on one parcel and three sheet-graded parcels fronting on Temescal Canyon Road for future retail/restaurant ground lease building pads. The new proposed building would include a clay-related commercial business and museum. The operations of the business would be enclosed inside of the new building with limited exterior yard use in screened and secured areas. The future retail/restaurant uses would include a 2,500-square-foot coffee shop with drive-through, a 2,900-square-foot fast casual restaurant, and a 5,000-square-foot fast food restaurant with drive-through. Figure 3 shows the proposed site plan.

Tentative Tract Map

The Applicant has applied for a Tentative Tract Map to create new legal lots of the three subject parcels as well as two adjacent parcels adjoining the proposed project. A total of six numbered lots and two lettered lots are created through this mapping action. The Tentative Tract Map seeks to create a parcel to support the continued operation of Laguna Clay in Temescal Canyon, while also creating commercial parcels capable of supporting commercial development consistent with that envisioned in the Riverside County General Plan and Temescal Canyon Area Plan.

General Plan Amendment

The Applicant has submitted a General Plan Amendment to redesignate one of the proposed lots (Lot 4) from Commercial Tourist to Light Industrial. The redesignation of the proposed lot, in conjunction with the Zone Change application, would make the existing Laguna Clay facility a conforming use under the Riverside County General Plan. Importantly, this redesignation from Commercial Tourist to Light Industrial is not a foundational General Plan Amendment, as both designations are within the Community Development foundational land use. The remaining three parcels would retain the existing Commercial Tourist land use.

Zone Change

The Applicant has submitted a Zone Change application to designate the proposed Lot 4 from Scenic Highway Commercial (C-P-S) to Manufacturing-Service Commercial (M-SC). The change of zone would allow the existing Laguna Clay operation to be designated a conforming use. The three remaining parcels would remain zoned C-P-S.

FIGURE 1
Regional Location

RECON
M:\JOBS5\8622\common_gis\fig1.mxd 08/11/2022 bma

Image Source: NearMap (flown September 2023)

Project Boundary

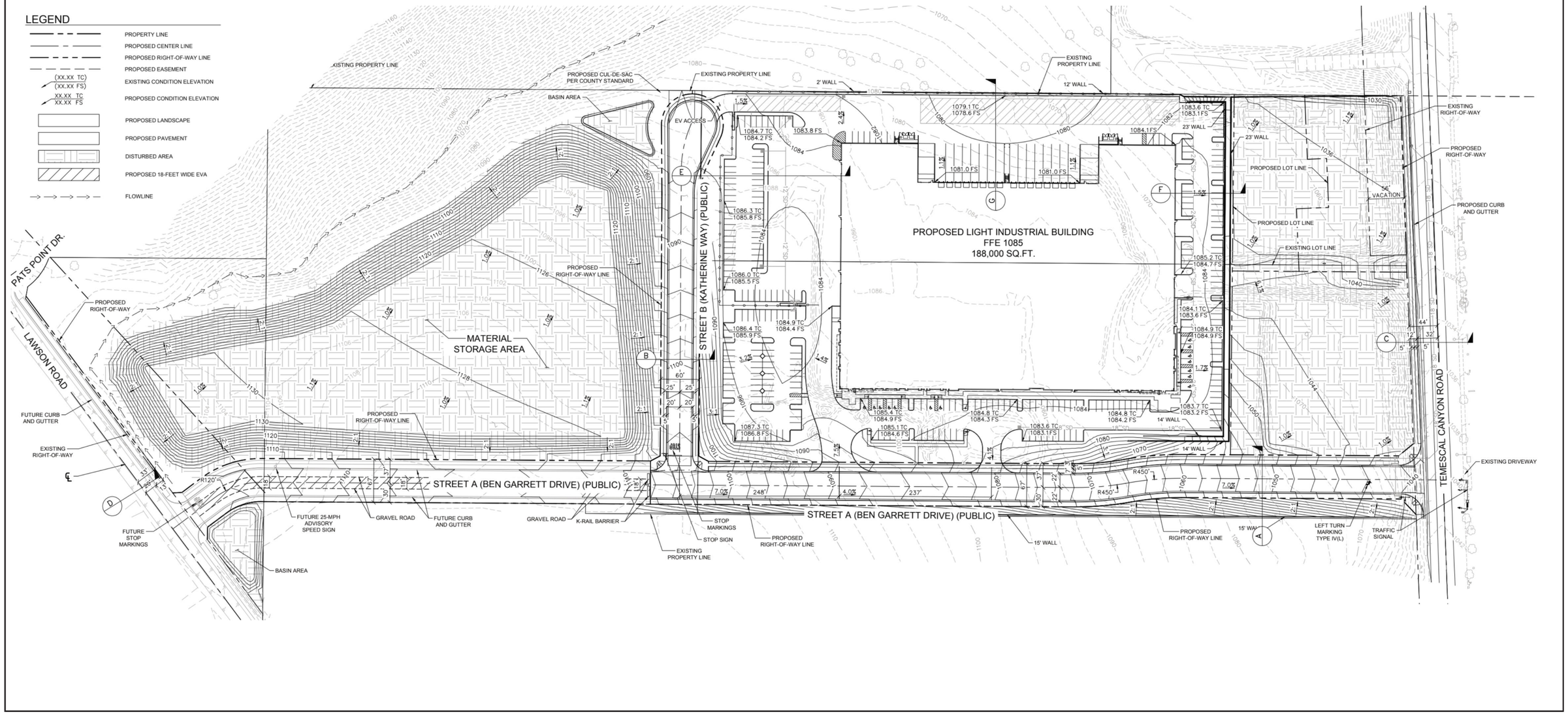
RECON

M:\JOBS5\8622\common_gis\fig2_nos.mxd 01/18/2024 bma

FIGURE 2

Project Location on Aerial Photograph

Map Source: Kimley Horn



RECON

M:\JOBS5\8622\nos\graphics\Fig3.afdesign 01/18/24 bma

FIGURE 3
Site Plan

Plot Plan

The Applicant has submitted a Plot Plan for a 188,000-square-foot concrete tilt up building (including tenant improvements) to create a new facility for Laguna Clay's operations. The proposed grading to support the new facility largely maintains the current raised elevation above Temescal Canyon Road and steps up approximately 45 feet from the retail parcel elevation to the proposed Light Industrial pad elevation.

Roadways

To serve the new development, there are two new proposed streets to be constructed. Proposed Street A (Ben Garrett Drive) would provide access from Temescal Canyon Road extending west to the intersection with new proposed Street B (Katherine Way) that extends north terminating at an offset cul-de-sac.

3.0 Regulatory Framework

3.1 Federal Regulations

AAQS represent the maximum levels of background pollution considered safe, with an adequate margin of safety, to protect the public health and welfare. The federal Clean Air Act (CAA) was enacted in 1970 and amended in 1977 and 1990 [42 United States Code (USC) 7401] for the purposes of protecting and enhancing the quality of the nation's air resources to benefit public health, welfare, and productivity. In 1971, in order to achieve the purposes of Section 109 of the CAA [42 USC 7409], the U.S. Environmental Protection Agency (U.S. EPA) developed primary and secondary National Ambient Air Quality Standards (NAAQS).

Six criteria pollutants of primary concern have been designated: ozone, carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), lead (Pb), and respirable particulate matter (PM_{10} and $PM_{2.5}$). The primary NAAQS ". . . in the judgment of the Administrator, based on such criteria and allowing an adequate margin of safety, are requisite to protect the public health . . . " and the secondary standards ". . . protect the public welfare from any known or anticipated adverse effects associated with the presence of such air pollutant in the ambient air" [42 USC 7409(b)(2)]. The primary NAAQS were established, with a margin of safety, considering long-term exposure for the most sensitive groups in the general population (i.e., children, senior citizens, and people with breathing difficulties). The NAAQS are presented in Table 1 (California Air Resources Board [CARB] 2016).

Table 1
Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]		National Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone[8]	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	–	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.07 ppm (137 µg/m^3)		0.070 ppm (137 µg/m^3)		
Respirable Particulate Matter (PM_{10})[9]	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		–		
Fine Particulate Matter ($PM_{2.5}$)[9]	24 Hour	No Separate State Standard		35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12 µg/m^3	15 µg/m^3	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	Non-dispersive Infrared Photometry	35 ppm (40 mg/m^3)	–	Non-dispersive Infrared Photometry
	8 Hour	9.0 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)	–	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		–	–	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 µg/m^3)	Gas Phase Chemi-luminescence	100 ppb (188 µg/m^3)	–	Gas Phase Chemi-luminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)		0.053 ppm (100 µg/m^3)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m^3)	–	Ultraviolet Fluorescence; Spectro-photometry (Pararosaniline Method)
	3 Hour	–		–	0.5 ppm (1,300 µg/m^3)	
	24 Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas)[11]	–	
	Annual Arithmetic Mean	–		0.030 ppm (for certain areas)[11]	–	
Lead[12,13]	30 Day Average	1.5 µg/m^3	Atomic Absorption	–	–	High Volume Sampler and Atomic Absorption
	Calendar Quarter	–		1.5 µg/m^3 (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	–		0.15 µg/m^3		
Visibility Reducing Particles[14]	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m^3	Ion Chroma-tography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chroma-tography			

See footnotes on next page.

Table 1
Ambient Air Quality Standards

ppm = parts per million; ppb = parts per billion; µg/m^3 = micrograms per cubic meter; – = not applicable.

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

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

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

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

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

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

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

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

[9] On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 µg/m^3 to 12.0 µg/m^3. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 µg/m^3, as was the annual secondary standards of 15 µg/m^3. The existing 24-hour PM_{10} standards (primary and secondary) of 150 µg/m^3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

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

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

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

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

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

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

SOURCE: CARB 2016.

An air basin is designated as either attainment or non-attainment for a particular pollutant. Once a non-attainment area has achieved the AAQS for a particular pollutant, it is redesignated as an attainment area for that pollutant. To be redesignated, the area must meet air quality standards for three consecutive years. After redesignation to attainment, the area is known as a maintenance area and must develop a 10-year plan for continuing to meet and maintain air quality standards, as well as satisfy other requirements of the federal CAA. The SoCAB is designated as in attainment or unclassifiable attainment (expected to be meeting the standard despite a lack of monitoring data) for all federal air quality standards except for the 8-hour ozone and $PM_{2.5}$ standards.

3.2 State Regulations

3.2.1 Criteria Pollutants

The CARB has developed the California Ambient Air Quality Standards (CAAQS) and generally has set more stringent limits on the criteria pollutants than the NAAQS (see Table 1). In addition to the federal criteria pollutants, the CAAQS also specify standards for visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride (see Table 1).

Similar to the federal CAA, the state classifies as either "attainment" or "non-attainment" areas for each pollutant based on the comparison of measured data with the CAAQS. The portion of the SoCAB covering the project site is a non-attainment area for the state 1-hour and 8-hour ozone, PM_{10}, and $PM_{2.5}$ standards.

3.2.2 Toxic Air Contaminants

The public's exposure to toxic air contaminants (TACs) is a significant public health issue in California. Diesel-exhaust particulate matter emissions have been established as TACs. In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health (Assembly Bill [AB] 1807: Health and Safety Code Sections 39650–39674). The Legislature established a two-step process to address the potential health effects from TACs. The first step is the risk assessment (or identification) phase. The second step is the risk management (or control) phase of the process.

The California air toxics Program establishes the process for the identification and control of TACs and includes provisions to make the public aware of significant toxic exposures and for reducing risk. Additionally, the Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, 1987, Connelly Bill) was enacted in 1987 and requires stationary sources to report the types and quantities of certain substances routinely released into the air.

The goals of the Air Toxics "Hot Spots" Act are to collect emission data, to identify facilities having localized impacts, to ascertain health risks, to notify nearby residents of significant risks, and to reduce those significant risks to acceptable levels.

The Children's Environmental Health Protection Act, California Senate Bill 25 (Chapter 731, Escutia, Statutes of 1999), focuses on children's exposure to air pollutants. The act requires CARB to review

its air quality standards from a children's health perspective, evaluate the statewide air monitoring network, and develop any additional air toxic control measures needed to protect children's health. Locally, toxic air pollutants are regulated through the SCAQMD's Regulation XIV. Of particular concern statewide are diesel-exhaust particulate matter emissions. Diesel-exhaust particulate matter was established as a TAC in 1998 and is estimated to represent a majority of the cancer risk from TACs statewide (based on the statewide average). Diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously Identified as TACs by the CARB and are listed as carcinogens either under the state's Proposition 65 or under the federal Hazardous Air Pollutants program.

Following the identification of diesel particulate matter (DPM) as a TAC in 1998, CARB has worked on developing strategies and regulations aimed at reducing the risk from DPM. The overall strategy for achieving these reductions is found in the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles (CARB 2000). To monitor the effectiveness of the efforts to reduce DPM, CARB has supported field campaigns that measure real-world emissions from heavy-duty vehicles, and results indicate that regulations aimed at reducing emissions of DPM have been successful.

CARB published the Air Quality and Land Use Handbook: A Community Health Perspective (CARB 2005). The handbook makes recommendations directed at protecting sensitive land uses from air pollutant emissions while balancing a myriad of other land use issues (housing, transportation needs, economics, etc.). It notes that the handbook is not regulatory or binding on local agencies and recognizes that application takes a qualitative approach. As reflected in the CARB Handbook, there is currently no adopted standard for the significance of health effects from mobile sources. Therefore, the CARB has provided guidelines for the siting of land uses near heavily traveled roadways. Of pertinence to this study, the CARB guidelines indicate that siting new sensitive land uses within 500 feet of a freeway or urban roads with 100,000 or more vehicles/day should be avoided when possible.

As an ongoing process, CARB will continue to establish new programs and regulations for the control of diesel particulate and other air-toxics emissions as appropriate. The continued development and implementation of these programs and policies will ensure that the public's exposure to DPM will continue to decline.

3.2.3 State Implementation Plan

The State Implementation Plan (SIP) is a collection of documents that set forth the state's strategies for achieving the NAAQS. In California, the SIP is a compilation of new and previously submitted plans, programs (such as air quality management plans, monitoring, modeling, permitting, etc.), district rules, state regulations, and federal controls. The CARB is the lead agency for all purposes related to the SIP under state law. Local air districts and other agencies, such as the Department of Pesticide Regulation and the Bureau of Automotive Repair, prepare SIP elements and submit them to CARB for review and approval. The CARB then forwards SIP revisions to the U.S. EPA for approval and publication in the Federal Register. All of the items included in the California SIP are listed in the Code of Federal Regulations (CFR) at 40 CFR 52.220.

3.2.4 The California Environmental Quality Act

Section 15125(d) of the California Environmental Quality Act (CEQA) Guidelines requires discussion of any inconsistencies between the project and applicable general plans and regional plans, including the applicable air quality attainment or maintenance plan (or SIP).

3.3 Local Regulations

3.3.1 South Coast Air Quality Management District

The SCAQMD is the air pollution control agency in the SoCAB. The role of the local SCAQMD is to protect the people and the environment of the SoCAB from the effects of air pollution. As the SCAQMD is designated as a nonattainment area for state air quality standards for 1-hour and 8-hour ozone, PM_{10}, and $PM_{2.5}$, SCAQMD periodically prepares air quality management plans outlining measures to reduce these pollutants. The most recent AQMP is the 2022 AQMP adopted in December 2022.

Emissions that would result from mobile, area, and stationary sources during construction and operation of the project are subject to the rules and regulations of SCAQMD. The SCAQMD rules applicable to the project may include the following:

- **Rule 401, Visible Emissions.** This rule establishes the limit for visible emissions from stationary sources.

- **Rule 402, Nuisance.** This rule prohibits the discharge of air pollutants from a facility that cause injury, detriment, nuisance, or annoyance to the public or damage to business or property.

- **Rule 403, Fugitive Dust.** This rule requires fugitive dust sources to implement best available control measures for all sources and prohibits all forms of visible particulate matter from crossing any property line. SCAQMD Rule 403 is intended to reduce PM_{10} emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust.

- **Rule 431.2, Sulfur Content of Liquid Fuels.** The purpose of this rule is to limit the sulfur content in diesel and other liquid fuels for the purpose of reducing the formation of oxides of sulfur (SO_X) and particulates during combustion and of enabling the use of add-on control devices for diesel-fueled internal combustion engines. The rule applies to all refiners, importers, and other fuel suppliers such as distributors, marketers, and retailers, as well as to users of diesel, low-sulfur diesel, and other liquid fuels for stationary-source applications in the SCAQMD. The rule also affects diesel fuel supplied for mobile sources.

- **Rule 1110.2, Emissions from Gaseous- and Liquid-Fueled Engines.** This rule applies to stationary and portable engines rated at greater than 50 horsepower. The purpose of Rule 1110.2 is to reduce oxides of nitrogen (NO_X), volatile organic compounds (VOC), and CO emissions from engines. Emergency engines, including those powering standby generators,

are generally exempt from the emissions and monitoring requirements of this rule because they have permit conditions that limit operation to 200 hours or less per year as determined by an elapsed operating time meter.

- Rule 1113, Architectural Coatings. This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.

3.3.2 Southern California Association of Governments

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

3.3.3 County of Riverside

The Air Quality Element of the County's General Plan (County of Riverside 2015). contains the following policies related to air quality:

Pollution Control Policies:

Multi-jurisdictional Cooperation

AQ 1.1 Promote and participate with regional and local agencies, both public and private, to protect and improve air quality.

AQ 1.2 Support Southern California Association of Government's (SCAG) Regional Growth Management Plan by developing intergovernmental agreements with appropriate governmental entities such as the Western Riverside Council of Governments (WRCOG), the Coachella Valley Association of Governments (CVAG), sanitation districts, water districts, and those subregional entities identified in the Regional Growth Management Plan.

AQ 1.3 Participate in the development and update of those regional air quality management plans required under federal and state law, and meet all standards established for clean air in these plans.

AQ 1.4 Coordinate with the SCAQMD and Mojave Desert Air Quality Management District (MDAQMD) to ensure that all elements of air quality plans regarding reduction of air pollutant emissions are being enforced.

AQ 1.5 Establish and implement air quality, land use and circulation measures that improve not only the County's environment but the entire region.

AQ 1.6 Establish a level playing field by working with local jurisdictions to simultaneously adopt policies similar to those in this Air Quality Element.

AQ 1.7 Support legislation which promotes cleaner industry, clean fuel vehicles and more efficient burning engines and fuels.

AQ 1.8 Support the introduction of federal, state or regional enabling legislation to permit the County to promote inventive air quality programs, which otherwise could not be implemented.

AQ 1.9 Encourage, publicly recognize and reward innovative approaches that improve air quality.

AQ 1.10 Work with regional and local agencies to evaluate the feasibility of implementing a system of charges (e.g., pollution charges, user fees, congestion pricing and toll roads) that requires individuals who undertake polluting activities to bear the economic cost of their actions where possible.

AQ 1.11 Involve environmental groups, the business community, special interests, and the general public in the formulation and implementation of programs that effectively reduce airborne pollutants.

Sensitive Receptors

AQ 2.1 The County land use planning efforts shall assure that sensitive receptors are separated and protected from polluting point sources to the greatest extent possible.

AQ 2.2 Require site plan designs to protect people and land uses sensitive to air pollution through the use of barriers and/or distance from emissions sources when possible.

AQ 2.3 Encourage the use of pollution control measures such as landscaping, vegetation and other materials, which trap particulate matter or control pollution.

AQ 2.4 Consider creating a program to plant urban trees on an Area Plan basis that removes pollutants from the air, provides shade and decreases the negative impacts of heat on the air.

Mobile Pollution Sources

AQ 3.1 Allow the market place, as much as possible, to determine the most economical approach to relieve congestion and cut emissions.

AQ 3.2 Seek new cooperative relationships between employers and employees to reduce vehicle miles traveled.

AQ 3.3 Encourage large employers and commercial/industrial complexes to create Transportation Management Associations.

AQ 3.4 Encourage employee rideshares and transit incentives for employers with more than 25 employees at a single location.

Stationary Pollution Sources

AQ 4.1 Require the use of all feasible building materials/methods which reduce emissions.

AQ 4.2 Require the use of all feasible efficient heating equipment and other appliances, such as water heaters, swimming pool heaters, cooking equipment, refrigerators, furnaces and boiler units.

AQ 4.3 Require centrally heated facilities to utilize automated time clocks or occupant sensors to control heating where feasible.

AQ 4.4 Require residential building construction to comply with energy use guidelines detailed in Part 6 (California Energy Code) and/or Part 11 (California Green Building Standards Code) of Title 24 of the California Code of Regulations.

AQ 4.5 Require stationary pollution sources to minimize the release of toxic pollutants through:

- Design features;
- Operating procedures;
- Preventive maintenance;
- Operator training; and
- Emergency response planning

AQ 4.6 Require stationary air pollution sources to comply with applicable air district rules and control measures.

AQ 4.7 To the greatest extent possible, require every project to mitigate any of its anticipated emissions which exceed allowable emissions as established by the SCAQMD, MDAQMD, SoCAB, the Environmental Protection Agency and the California Air Resources Board.

AQ 4.8 Expand, as appropriate, measures contained in the County's Fugitive Dust Reduction Program for the Coachella Valley to the entire County.

AQ 4.9 Require compliance with SCAQMD Rules 403 and 403.1, and support appropriate future measures to reduce fugitive dust emanating from construction sites.

AQ 4.10 Coordinate with the SCAQMD and MDAQMD to create a communications plan to alert those conducting grading operations in the County of first, second, and third stage smog alerts, and when wind speeds exceed 25 miles per hour. During these instances all grading operations should be suspended.

Energy Efficiency and Conservation

AQ 5.1 Utilize source reduction, recycling and other appropriate measures to reduce the amount of solid waste disposed of in landfills.

AQ 5.2 Adopt incentives and/or regulations to enact energy conservation requirements for private and public developments.

AQ 5.3 Update, when necessary, the County's Policy Manual for Energy Conservation to reflect revisions to the County Energy Conservation Program.

AQ 5.4 Encourage the incorporation of energy-efficient design elements, including appropriate site orientation and the use of shade and windbreak trees to reduce fuel consumption for heating and cooling.

4.0 Environmental Setting

4.1 Site Conditions

The project site is abutted by vacant land to the north, west, and south, and a commercial center with gas station to the west. Single family residential uses are located to the southwest, west, and northwest. I-15 is located 520 feet or more from the eastern property line. The nearest sensitive receptors are the residential uses located adjacent to the western and southern project boundaries as close as 25 feet.

4.2 Regional Setting and Climate

The project is located approximately 24 miles northeast of the Pacific Ocean, within Riverside County, between the Santa Ana Mountains and the San Jacinto Mountains. Air quality in the county is influenced by both topographical and meteorological conditions.

The project area, like other inland valley areas in southern California, has a Mediterranean climate characterized by warm, dry summers and mild, wet winters. Based on measurements taken at the Elsinore climate monitoring station (ID 042805), the average annual precipitation is 12 inches, falling primarily from November to April (Western Regional Climate Center 2023). Overall annual temperatures in the project area average about 64 degrees Fahrenheit (°F), winter low temperatures average about 37°F, and summer high temperatures average about 96°F.

The dominant meteorological feature affecting the region is the Pacific High Pressure Zone, which produces the prevailing westerly to northwesterly winds. These winds tend to blow pollutants away from the coast toward the inland areas. Consequently, air quality near the coast is generally better than that which occurs at the base of the coastal mountain range.

The prevailing westerly wind pattern is sometimes interrupted by regional "Santa Ana" conditions. A Santa Ana occurs when a strong high pressure develops over the Nevada–Utah area and overcomes

the prevailing westerly coastal winds, sending strong, steady, hot, dry northeasterly winds over the mountains and out to sea.

4.3 Existing Air Quality

As discussed in Section 1.0 above, the State of California is divided geographically into 15 air basins for managing the air resources of the state on a regional basis. The project is located in the SoCAB, which includes Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. The SoCAB is designated as in attainment or unclassifiable attainment (expected to be meeting the standard despite a lack of monitoring data) for all federal air quality standards except 8-hour ozone and $PM_{2.5}$ standards. The SoCAB is designated as in nonattainment for state air quality standards for 8-hour ozone, PM_{10}, and $PM_{2.5}$.

Air quality is commonly expressed as the number of days in which air pollution levels exceed state standards set by CARB or federal standards set by the U.S. EPA. SCAQMD has divided its jurisdictional territory of the SoCAB into 38 Source Receptor Areas (SRAs), most of which have monitoring stations that collect air quality data. These SRAs are designated to provide a general representation of the local meteorological, terrain, and air quality conditions within the particular geographical area. These geographical areas include urbanized regions, interior valleys, coastal areas, and mountains. The project site is located within Lake Elsinore SRA 25. The SCAQMD maintains 41 active air quality monitoring sites located throughout the SoCAB. Air pollutant concentrations and meteorological information are continuously recorded at these stations. Measurements are then used by scientists to help forecast daily air pollution levels.

The nearest monitoring stations include the Lake Elsinore monitoring station, located 11 miles southeast of the project site at 506 West Flint Street. The Lake Elsinore monitoring station measures ozone, NO_2, PM_{10}, and $PM_{2.5.}$ Table 2 provides a summary of measurements collected at the Lake Elsinore monitoring station for the years 2020 through 2022.

Table 2
Summary of Air Quality Measurements Recorded at the Lake Elsinore Air Quality Monitoring Station

Pollutant/Standard	2020	2021	2022
Ozone			
Federal Max 8-hr (ppm)	0.100	0.097	0.091
Days 2015 Federal 8-hour Standard Exceeded (0.07 ppm)	54	44	37
Days 2008 Federal 8-hour Standard Exceeded (0.075 ppm)	31	22	27
State Max 8-hr (ppm)	0.100	0.098	0.092
Days State 8-hour Standard Exceeded (0.07 ppm)	55	46	37
Max. 1-hour (ppm)	0.130	0.118	0.121
Days State 1-hour Standard Exceeded (0.09 ppm)	1	0	0
Nitrogen Dioxide			
Max 1-hour (ppm)	0.0436	0.0437	0.0372
Days State 1-hour Standard Exceeded (0.18 ppm)	0	0	0
Days Federal 1-hour Standard Exceeded (0.100 ppm)	0	0	0
Annual Average (ppm)	0.007	0.007	0.007
PM_{10}*			
Federal Max. Daily ($\mu g/m^3$)	192.4	90.0	91.8

Table 2 Summary of Air Quality Measurements Recorded at the Lake Elsinore Air Quality Monitoring Station			
Pollutant/Standard	2020	2021	2022
Measured Days Federal 24-hour Standard Exceeded (150 µg/m^3)	1	0	0
Calculated Days Federal 24-hour Standard Exceeded (150 µg/m^3)	1.0	0.0	0.0
Federal Annual Average (µg/m^3)	23.7	22.4	20.3
State Max. Daily (µg/m^3)	--	--	--
Measured Days State 24-hour Standard Exceeded (50 µg/m^3)	--	--	--
Calculated Days State 24-hour Standard Exceeded (50 µg/m^3)	--	--	--
State Annual Average (µg/m^3)	--	--	--
$PM_{2.5}$*			
Federal Max. Daily (µg/m^3)	--	--	--
Measured Days Federal 24-hour Standard Exceeded (35 µg/m^3)	--	--	--
Calculated Days Federal 24-hour Standard Exceeded (35 µg/m^3)	--	--	--
Federal Annual Average (µg/m^3)	--	--	--
State Max. Daily (µg/m^3)	41.6	28.8	16.2
State Annual Average (µg/m^3)	7.2	6.9	5.8
SOURCE: CARB 2023. ppm = parts per million; µg/m^3 = micrograms per cubic meter; -- = Not available. * Calculated days value. Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year.			

5.0 Significance Criteria

The significance thresholds used in this analysis were based on Appendix G of the CEQA Guidelines as well as guidance from the SCAQMD for assessing air quality impacts. The following thresholds were used to determine significance of air quality impacts associated with the project. Adverse air quality impacts would occur if implementation of the project would:

- Obstruct or conflict with the implementation of the applicable air quality plan.
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standards (including the release of emissions which exceed quantitative thresholds for ozone precursors).
- Expose sensitive receptors to substantial pollutant concentration including air toxics.
- Create objectionable odors affecting a substantial number of people.

5.1 Regional Significance Thresholds

The SCAQMD has established significance thresholds to assess the regional and localized impacts of project-related air pollutant emissions. These significance thresholds are updated as needed to appropriately represent the most current technical information and attainment status in the SoCAB.

The County uses the current SCAQMD thresholds to determine whether a project would have a significant impact. SCAQMD's significance thresholds for impacts to regional air quality are shown in Table 3.

Table 3
SCAQMD Air Quality Significance Thresholds – Mass Daily Thresholds

Pollutant	Emissions (pounds)	
	Construction	Operational
Oxides of Nitrogen (NO_X)	100	55
Volatile Organic Compounds (VOC)	75	55
Coarse Particulate Matter (PM_{10})	150	150
Fine Particulate Matter ($PM_{2.5}$)	55	55
Oxides of Sulfur (SO_X)	150	150
Carbon Monoxide (CO)	550	550
Lead (Pb)	3	3
SOURCE: SCAQMD CEQA Air Quality Handbook (SCAQMD 1993); SCAQMD Air Quality Significance Thresholds (SCAQMD 2023)		

5.2 Localized Significance Thresholds

The SCAQMD's Final Localized Significance Threshold (LST) Methodology was developed as a tool to assist lead agencies to analyze localized air quality impacts to sensitive receptors in the vicinity of the project (SCAQMD 2008). The LST Methodology outlines how to analyze localized impacts from common pollutants of concern including NO_2, CO, PM_{10}, and $PM_{2.5}$. Localized air quality impacts would occur if pollutant concentrations at sensitive receptors exceeded applicable NAAQS or CAAQS.

LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest residence or sensitive receptor. The SCAQMD states that lead agencies can use the LSTs as another indicator of significance in its air quality impact analyses. The significance of localized emissions impacts depends on whether ambient levels in the vicinity of any given project are above or below State standards. In the case of CO and NO_2, if ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a state or federal standard, then project emissions are considered significant if they increase ambient concentrations by a measurable amount. This would apply to PM_{10} and $PM_{2.5}$, both of which are non-attainment pollutants.

6.0 Air Quality Calculations

Construction impacts are short term and result from fugitive dust, equipment exhaust, and indirect effects associated with construction workers and deliveries. Operational impacts can occur on two levels: regional or local. In the case of this project, operational impacts are primarily due to emissions from project-related mobile sources associated with vehicular travel along the roadways. Operational

emissions also consist of area and energy sources that are direct sources of emissions located at the project site.

Construction and operation air emissions were calculated using California Emissions Estimator Model (CalEEMod) 2022.1 (California Air Pollution Control Officers Association 2022). The CalEEMod program is a tool used to estimate air emissions resulting from land development projects based on California-specific emission factors. The model estimates mass emissions from two basics sources: construction sources and operational sources (i.e., area and mobile sources).

Inputs to CalEEMod include such items as the air basin containing the project, land uses, trip generation rates, trip lengths, vehicle fleet mix (percentage of autos, medium truck, etc.), trip destination (i.e., percent of trips from home to work, etc.), duration of construction phases, construction equipment usage, grading areas, season, and ambient temperature, as well as other parameters. The CalEEMod output files presented in Attachment 1 indicate the specific outputs for each model run. Emissions of NO_X, CO, SO_X, PM_{10}, $PM_{2.5}$, and reactive organic gases (ROG) are calculated. Emission factors are not available for lead and consequently lead emissions are not calculated. The SoCAB is currently in attainment of the federal and state lead standards. Furthermore, fuel used in construction equipment and most other vehicles is not leaded.

6.1 Construction Regional Emissions

Construction-related activities are temporary, short-term sources of emissions. Sources of construction-related emissions include the following:

- Fugitive dust from grading activities;
- Construction equipment exhaust; and
- Construction-related trips by workers, delivery trucks, and material-hauling trucks.

Construction-related emissions include emissions from dust raised during grading, exhaust from construction vehicles, and chemicals used during construction. Fugitive dust emissions vary greatly during construction and are dependent on the amount and type of activity, silt content of the soil, and the weather. Vehicles moving over paved and unpaved surfaces, excavation, earth movement, grading, and wind erosion from exposed surfaces are all sources of fugitive dust. Construction operations are subject to the requirements established by the SCAQMD including Rule 403, Fugitive Dust. Rule 403 requires the use of best available control measures for fugitive dust. This analysis assumes that standard dust and emission control during grading operations would be implemented to reduce potential nuisance impacts and to ensure compliance with SCAQMD Rule 403, which is estimated to result in a 61 percent reduction in fugitive dust from watering three times per day. The project would also be required to comply with SCAQMD Rule 1113, which places VOC content limits on architectural coatings. Criteria pollutant emissions were calculated using the default VOC content values of 50 and 100 grams per liter which was provided by the SCAQMD.

Heavy-duty construction equipment is usually diesel-powered. Standard construction equipment includes dozers, rollers, scrapers, dewatering pumps, backhoes, loaders, paving equipment, delivery/haul trucks, jacking equipment, welding machines, pile drivers, and so on. Specific construction phasing and equipment parameters are not available at this time. However, CalEEMod

can estimate the required construction equipment when project-specific information is unavailable. The estimates are based on surveys, performed by the SCAQMD and the Sacramento Metropolitan Air Quality Management District, of typical construction projects that provide a basis for scaling equipment needs and schedule with a project's size. Air emission estimates in CalEEMod are based on the duration of construction phases; construction equipment type, quantity, and usage; grading area; season; and ambient temperature, among other parameters. The construction schedule is based on the default construction phases, which include demolition, site preparation, grading, building construction, paving, and architectural coatings. Project site grading would require 261,000 cubic yards of cut and 240,000 cubic yards of fill, for a total of 21,000 cubic yards of soil export. The project would use the parcel to the west as an off-site material storage area; however, as a conservative analysis, soil export was modeled with a default on-way trip distance of 20 miles.

Table 4 summarizes the anticipated construction phases, duration, and equipment for total project construction. Table 5 shows the total projected construction maximum daily emission levels for each criteria pollutant and compares emissions to the SCAQMD regional significance thresholds. The CalEEMod output files for construction emissions are presented in Attachment 1.

Table 4
Construction Phases and Equipment

Equipment	Quantity	Daily Operation Time (hours)
Demolition (30 days)		
Rubber Tired Dozers	2	8
Excavators	3	8
Concrete/Industrial Saw	1	8
Site Preparation (20 days)		
Rubber Tired Dozers	3	8
Tractors/Loaders/Backhoes	4	8
Grading (45 days)		
Grader	1	8
Excavators	2	8
Tractors/Loaders/Backhoes	2	8
Scrapers	2	8
Rubber Tired Dozer	1	8
Building Construction (440 days)		
Forklifts	3	8
Generator Set	1	8
Crane	1	7
Welder	1	8
Tractors/Loaders/Backhoes	3	7
Paving (35 days)		
Pavers	2	8
Paving Equipment	2	8
Rollers	2	8
Architectural Coatings (35 days)		
Air Compressor	1	6
NOTE: Each phase would also include vehicles associated with work commutes, dump trucks for hauling, and trucks for deliveries.		

Table 5 Maximum Daily Construction Emissions						
Phase	Emissions (pounds per day)					
	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Demolition	3	26	22	<1	4	2
Site Preparation	3	32	31	<1	9	5
Grading	3	34	31	<1	6	3
Building Construction	2	12	20	<1	2	1
Paving	2	7	11	<1	<1	<1
Architectural Coatings	53	1	2	<1	<1	<1
Maximum Daily Emissions[1]	**53**	**34**	**31**	**<1**	**9**	**5**
SCAQMD Significance Threshold	*75*	*100*	*550*	*150*	*150*	*55*
Exceeds Threshold?	*No*	*No*	*No*	*No*	*No*	*No*
[1]Emissions were rounded to the nearest whole number. Emissions reported as <1 indicate that emissions were calculated to be less than 0.5 pound per day.						

As shown in Table 5, maximum daily construction emissions would be less than the daily SCAQMD regional thresholds for all criteria pollutants.

6.2 Operational Regional Emissions

Mobile source emissions would originate from traffic generated by the project. Energy source emissions would result from the use of natural gas. Area source emissions would result from the use of consumer products, as well as applying architectural coatings and landscaping activities.

6.2.1 Mobile Sources

Mobile source operational emissions are based on the trip rate, trip length, and vehicle mix. Project trip generation was obtained from the Scoping Agreement for the Traffic Impact Study which utilizes trip rates from the ITE Trip Generation Manual, 11th Edition. Project trip generation is summarized in Table 6.

Table 6 Project Trip Generation			
Use	Daily Trips	AM Peak Hour	PM Peak Hour
Manufacturing (188,000 square feet)			
Passenger Cars	701	102	109
2 Axle Trucks	107	14	17
3 Axle Trucks	71	11	11
4+ Axle Trucks	254	34	39
Manufacturing Subtotal	*1,133*	*161*	*176*
Internal Capture[1]	-127	-13	-9
Manufacturing Total	**1,006**	**148**	**167**
Coffee Shop with Drive-Through (2,500 square feet)	1,334	215	97
Internal Capture[1]	-40	-6	-3
Coffee Shop Subtotal	*1,294*	*209*	*94*
Pass-By Trips (25%)[2]	-324	-52	-24
Coffee Shop Total	**970**	**157**	**70**
Fast Casual Restaurant (2,900 square feet)	282	4	36
Internal Capture[1]	-8	0	-1
Fast Casual Restaurant Subtotal	*274*	*4*	*35*
Pass-By Trips (25%)[2]	-27	0	-9
Fast Casual Restaurant Total	**247**	**4**	**26**
Fast Food Restaurant with Drive-Through (5,000 square feet)	2,337	223	165
Internal Capture[1]	-70	-7	-5
Fast Food Restaurant Subtotal	*2,267*	*216*	*160*
Pass-By Trips (25%)[2]	-567	-54	-40
Fast Food Restaurant Total	**1,700**	**162**	**120**
Project Total	**3,932**	**471**	**383**

SOURCE: Linscott, Law & Greenspan, Engineers 2024.

[1]Project trip generation was adjusted to account for internal capture between the manufacturing employee and restaurant components of the project.

[2]Pass-By Trips are trips made as intermediate stops on the way from an origin to a primary trip destination. Pass-by trips are attracted from traffic passing the site on adjacent streets, which contain direct access to the generator. For this analysis, the following pass-by ITE Trip Generation Manual, 11th Edition, reduction factors were referenced:

- 930: Fast Casual Restaurant: Daily = 10% (assumed)
- 934: Fast Food Restaurant with Drive-Through Window: Daily = 25% (assumed)
- 937: Coffee/Donut Shop With Drive-Through Window: Daily = 25% (assumed)

CalEEMod default trip lengths were modeled utilizing default vehicle emission factors based on CARB's 2021 EMissions FACtor model. The default fleet mix for the restaurants were modeled, and the fleet mix for the manufacturing use was modified to reflect the truck volumes summarized in Table 6. Emissions were calculated for the soonest operational year of 2026.

6.2.2 Area Sources

Area sources are defined as direct sources of operational emissions located at the project site. Area source emissions associated with the project include consumer products, architectural coatings, and landscaping equipment. Hearths (fireplaces) and woodstoves are also a source of area emissions; however, the project would not include hearths or woodstoves. Consumer products are chemically formulated products used by household and institutional consumers, including, but not limited to, detergents, cleaning compounds, polishes, floor finishes, disinfectants, sanitizers, and aerosol paints

but not including other paint products, furniture coatings, or architectural coatings. Emissions due to consumer products are calculated using total building area and product emission factors.

For architectural coatings, emissions result from evaporation of solvents contained in surface coatings such as in paints and primers. Emissions are based on the building surface area, architectural coating emission factors, and a reapplication rate of 10 percent of area per year. Landscaping maintenance includes fuel combustion emission from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chain saws, and hedge trimmers as well as air compressors, generators, and pumps. Emission calculations take into account building area, equipment emission factors, and the number of operational days (summer days).

6.2.3 Energy Sources

Energy source emissions associated with the project include natural gas used in space and water heating. Emissions are generated from the combustion of natural gas used in space and water heating. Emissions are based on the Residential Appliance Saturation Survey which is a comprehensive energy use assessment that includes the end use for various climate zones in California. Note that the residential portion of the project would be an all-electric development with no natural gas.

6.2.4 Total Operational Emissions

Table 7 presents the total operational emissions that would be generated by the project. CalEEMod output files are presented in Attachment 1. As shown in Table 7, project-generated emissions are projected to be less than the SCAQMD's significance thresholds for all criteria pollutants.

Table 7
Summary of Project Operational Emissions
(pounds per day)

Source	Emissions					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Mobile Sources	18	20	207	1	46	12
Area Sources	6	<1	9	<1	<1	<1
Energy Sources	<1	2	2	<1	<1	<1
Total	**24**	**22**	**218**	**1**	**47**	**12**
SCAQMD Significance Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Exceeds Threshold?	*No*	*No*	*No*	*No*	*No*	*No*
NOTE: Totals may vary due to independent rounding.						

6.3 Localized Significance Thresholds

6.3.1 Construction Localized Significance Thresholds Calculations

The project site is located within Lake Elsinore SRA 25. LSTs apply to on-site air emissions of CO, NO_2, PM_{10}, and $PM_{2.5}$. Based on the SCAQMD's Fact Sheet for Applying CalEEMod to Localized

Significance Thresholds (Fact Sheet), the appropriate methodology for determining localized impacts that could occur as a result of project-related construction, should follow these steps:

- Use CalEEMod to determine the maximum daily on-site emissions that will occur during construction activity.
- The SCAQMD's Fact Sheet is used to determine the maximum site acreage that is actively disturbed based on the construction equipment fleet and equipment hours as estimated in CalEEMod.
- If the total calculated acreage is less than or equal to five acres, then the SCAQMD's screening look-up tables may be utilized to determine the potential for significant impacts. The look-up tables establish a maximum daily emissions threshold in pounds per day to be directly compared to CalEEMod emission results.
- If the total acreage disturbed is greater than five acres per day, then the SCAQMD recommends dispersion modeling to be conducted to determine the actual pollutant concentrations for applicable LSTs.

Additionally, the LST Methodology (SCAQMD 2008) states that only on-site emissions should be compared to LSTs. Therefore, off-site emissions associated with worker travel, materials deliveries, and other mobiles sources are not evaluated against LSTs.

The maximum on-site daily construction emissions for CO, NO_X, PM_{10}, and $PM_{2.5}$ are compared to the applicable screening thresholds based on construction site acreage and the distance to the closest sensitive receptor. The nearest sensitive receptors are the residential uses located as close as 25 feet from the western and southern boundaries of the off-site material storage area. To determine the maximum daily disturbed acreage for use in the SCAQMD's LST look-up tables, the maximum acres per day were developed from the CalEEMod Users Guide. Based on the CalEEMod Users Guide, the project is anticipated to disturb approximately 3.5 acres per day during the site preparation phase and 5.0 acres per day during the grading phase (Table 8). The SCAQMD's LST look-up tables provide LSTs for one-, two-, and five-acre sites. Using the guidance provided in the LST Methodology, LSTs for 3.5 acres were developed using ratios of the known acreages and corresponding LSTs using the methodology provided in Appendix K of the SCAQMD's *Sample Construction Scenarios for Projects Less than Five Acres in Size* (SCAQMD 2005). The closest receptor distance in LST look-up tables is 25 meters. Receptors are located closer than 25 meters from the project site. SCAQMD's guidance indicates that projects with sensitive receptors located closer than 25 meters should use the LSTs for receptors located at 25 meters.

Table 8 Maximum Disturbed Acres				
Phase	Equipment	Pieces	Acres/Piece	Total Daily Acres
Site Preparation	Rubber Tired Dozers	3	0.5	1.5
	Tractors/Loaders/Backhoes	4	0.5	2.0
	Total Acres			3.5
Grading	Excavators	2	0.5	1.0
	Graders	1	0.5	0.5
	Rubber Tired Dozers	1	0.5	0.5
	Scrapers	2	1	2
	Tractors/Loaders/Backhoes	2	0.5	1.0
	Total Acres			5.0
SOURCE: Attachment 1.				

The maximum daily localized emissions from project construction and LSTs are presented in Table 9. As shown in Table 9, the maximum localized construction emissions would not exceed any of the SCAQMD recommended localized screening thresholds.

Table 9 Localized Construction Emissions				
	NO_X	CO	PM_{10}	$PM_{2.5}$
Site Preparation (3.5 acres per day)				
Maximum On-Site Daily Emission	31.64	30.18	9.03	5.20
LST Threshold	273.1	1,521.8	9.8	6.1
Exceeds Threshold?	No	No	No	No
Grading (5.0 acres per day)				
Maximum On-Site Daily Emission	29.68	28.31	4.83	2.56
LST Threshold	*371*	*1,965*	*13*	*8*
Exceeds Threshold?	No	No	No	No

6.3.2 Operational Localized Significance Thresholds Calculations

Project operations impacts were also assessed used SCAQMD LSTs. Table 10 presents the maximum on-site emissions and applicable LSTs. As a conservative assessment, on-site emissions were evaluated against the most restrictive LSTs for a 1-acre project site with a sensitive receptor located 25 meters from the project boundary. As shown in Table 10, the maximum localized operational emissions would not exceed any of the SCAQMD recommended localized screening thresholds.

Table 10 Localized Operations Emissions				
Operations	Pollutant (pounds per day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Area Sources	0.07	8.63	0.02	0.01
Energy Sources	2.49	2.09	0.19	0.19
Maximum On-Site Emissions	2.56	10.72	0.21	0.20
Operations LST Threshold[1]	*162*	*750*	*1*	*1*
Exceeds Threshold?	No	No	No	No
NOTE: Totals may vary due to independent rounding. [1]Emissions are assessed against the threshold for 1-acre project sites with sensitive receptors within 25 meters of the project site boundary.				

6.4 Impact Analysis

1. Would the project obstruct or conflict with the implementation of the applicable air quality plan?

As described in Section 3.0 above, the SoCAB is designated as in attainment or unclassifiable attainment (expected to be meeting the standard despite a lack of monitoring data) for all federal air quality standards except for the 8-hour ozone and $PM_{2.5}$ standards. The SoCAB is also designated as in nonattainment for state air quality standards for 8-hour ozone and $PM_{2.5}$, and additionally is in nonattainment of state PM_{10} standards. The regional air quality plan, the 2022 AQMP, outlines measures to reduce emissions of ozone and $PM_{2.5}$. Whereas reducing PM concentrations is achieved by reducing emissions of $PM_{2.5}$ to the atmosphere, reducing ozone concentrations is achieved by reducing the precursors of photochemical formation of ozone, VOC, and NO_X.

The growth forecasting for the 2022 AQMP is based in part on the land uses established by local general plans. Thus, if a project is consistent with land use as designated in the local general plan, it can normally be considered consistent with the 2022 AQMP. Projects that propose a different land use than is identified in the local general plan may also be considered consistent with the 2022 AQMP if the proposed land use is less intensive than buildout under the current designation. For projects that propose a land use that is more intensive than the current designation, analysis that is more detailed is required to assess conformance with the 2022 AQMP.

The project site is designated as Commercial Tourist in the General Plan and is zoned Scenic Highway Commercial (C-P-S). The project would require a General Plan Amendment and a Rezone for the manufacturing building lot (Lot 4) to change the land use to Light Industrial and change the zone to Manufacturing – Service Commercial (M-SC). The remaining lots would retain the existing land use and zoning designations.

The Commercial Tourist designation allows for tourist-related commercial uses including hotels, golf courses, and recreation/amusement activities with a floor area ratio ranging from 0.2 to 0.35. Under this designation approximately 94,790 to 165,870 square feet of commercial uses could be constructed. These uses would result in a wide range of trip generation. ITE trip generation rates for a golf course, hotel, and racquet club were obtained from CalEEMod. These land uses would generate up to 2,327 trips per day for a 165,870-square-foot racquet club (14.03 trips per 1,000 square

feet). As shown in Table 6, the manufacturing land use would generate 1,006 daily trips, which is within the range of trips that could be generated by a project that is consistent with the existing land use designation. It can therefore be concluded that emissions generated by the project would be less than emissions generated by the current designation, and would not result in regional emissions that exceed the assumptions used in the 2022 AQMP.

Another factor used to determine if a project would conflict with implementation of the 2022 AQMP is determining if the project would result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay the timely attainment of air quality standards (NAAQS and CAAQS) or interim emissions reductions specified in the 2022 AQMP. NAAQS and CAAQS violations could occur if project emissions would exceed regional significance thresholds or LSTs. As shown in Tables 5 and 7 above, construction and operational emissions would not exceed the regional significance thresholds. Additionally, as shown in Tables 9 and 10 above, construction and operational emissions would not exceed the SCAQMD LSTs. Therefore, the project would not conflict with or obstruct the implementation of the 2022 AQMP or applicable portions of the SIP, and impacts would be less than significant.

2. *Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?*

As discussed in Section 3.0 above, the SoCAB is classified as in attainment for all criterion pollutants except for ozone, PM_{10}, and $PM_{2.5}$. The SoCAB is designated as a nonattainment area for federal AAQS for the 8-hour ozone and $PM_{2.5}$ standards, and is in nonattainment area under state PM_{10} standards. Ozone is not emitted directly, but is a result of atmospheric activity on precursors. NO_X and ROG are known as the chief "precursors" of ozone. These compounds react in the presence of sunlight to produce ozone.

Based on SCAQMD cumulative significance methodologies, the emissions-based thresholds shown in Table 3 are used to determine if a project's contribution to regional cumulative emissions is cumulatively considerable. These thresholds were used to assess the significance of the project-specific and cumulative air quality impacts. Air quality impacts are basin-wide, and air quality is affected by all pollutant sources in the SoCAB. As the individual project thresholds are designed to help achieve attainment with cumulative basin-wide standards, they are also appropriate for assessing the project's contribution to cumulative impacts.

As shown in Tables 5 and 7 above, emissions of ozone precursors (ROG and NO_X), PM_{10}, and $PM_{2.5}$ during construction and operation of the project would not exceed the SCAQMD's thresholds of significance. These thresholds are designed to provide limits below which project emissions from an individual project would not significantly affect regional air quality or the timely attainment of the NAAQS and CAAQS. Therefore, the project would not result in a cumulatively considerable net increase in emissions of ozone, PM_{10}, or $PM_{2.5}$, and impacts would be less than significant.

3. Would the project expose sensitive receptors to substantial pollutant concentration including air toxics such as diesel particulates?

A sensitive receptor is a person in the population who is more susceptible to health effects due to exposure to an air contaminant than is the population at large. Examples of sensitive receptor locations in the community include residences, schools, playgrounds, childcare centers, churches, athletic facilities, retirement homes, and long-term health care facilities. The nearest sensitive receptors are the residential uses located as close as 25 feet from the western and southern boundaries of the off-site material storage area.

Diesel Particulate Matter – Construction

Construction of the project would result in short-term diesel exhaust emissions from on-site heavy-duty equipment. Other construction-related sources of DPM include material delivery trucks and construction worker vehicles; however, these sources are minimal relative to construction equipment. Not all construction worker vehicles would be diesel-fueled and most DPM emissions associated with material delivery trucks and construction worker vehicles would occur off-site.

For purposes of analyzing construction-related toxic air contaminant emissions and their impact on sensitive receptors, the maximum annual PM_{10} emissions from equipment exhaust were used to develop an average daily emission rate. The exhaust emissions were calculated by CalEEMod, and the maximum annual DPM concentration was calculated using AERSCREEN. AERSCREEN calculates a worst-case maximum 1-hour concentration at a specific distance and specific angle from the source. The maximum 1-hour concentration is then converted to an annual concentration using a 0.08 conversion factor (U.S. EPA 1992).

Once the dispersed concentrations of diesel particulates are estimated in the surrounding air, they are used to evaluate estimated exposure to people. Exposure is evaluated by calculating the dose in milligrams per kilogram body weight per day (mg/kg/d). For residential exposure, the breathing rates are determined for specific age groups, so inhalation dose (Dose-air) is calculated for each of these age groups: third trimester of pregnancy, 0<2, 2<9, 2<16, 16<30 and 16–70 years. The equation for dose through inhalation (Dose-air) is as follows:

$Dose\text{-}air = (C_{air} \times DBR \times A \times EF \times 10^{-6})$;
Where:

Dose-air	=	Chronic daily intake, mg/kg/d
C_{air}	=	Ground-level concentration of toxic air contaminants to which the receptor is exposed, micrograms/cubic meter
DBR	=	Daily breathing rate, normalized to body weight (liters per kilogram body weight per day (Office of Environmental Health Hazard Assessment [OEHHA] 2015)
A	=	Inhalation absorption factor (OEHHA recommended factor of 1)
EF	=	Exposure frequency, days/year (OEHHA recommended factor of 0.96 for resident and 0.68 for workers)

Cancer risk is calculated by multiplying the daily inhalation or oral dose, by a cancer potency factor, the age sensitivity factor, the frequency of time spent at home and the exposure duration divided by averaging time, to yield the excess cancer risk. The excess cancer risk is calculated separately for each age grouping and then summed to yield cancer risk for any given location. The worst-case cancer risk is calculated as follows:

Excess Cancer Risk = Dose-air × CPF × ASF × ED/AT × FAH;
Where:

Dose-air	=	Chronic daily intake, mg/kg body weight per day
CPF	=	Cancer potency factor (mg/kg/d)
ASF	=	Age sensitivity factor
ED	=	Exposure duration (years)
AT	=	Averaging time for lifetime cancer risk (years)
FAH	=	Fraction of time at home

Non-cancer risks are defined as chronic or acute. With respect to DPM only chronic risks are calculated and are determined by the hazard index. To calculate hazard index, DPM concentration is divided by its chronic Reference Exposure Levels. Where the total equals or exceeds one, a health hazard is presumed to exist.

In this analysis, non-carcinogenic impacts are evaluated for chronic exposure inhalation exposure. Estimates of health impacts from non-carcinogenic concentrations are expressed as a hazard quotient (HQ) for individual substances, such as diesel particulate. An HQ of one or less indicates that adverse health effects are not expected to result from exposure to emissions of that substance. Reference Exposure Levels are defined as the concentration at which no adverse health effects are anticipated. Generally, the inhalation pathway is the largest contributor to the total dose. The HQ is calculated with the flowing equation:

HQ = Ground-Level Concentration ($\mu g/m^3$)/Reference Exposure Level ($\mu g/m^3$)

It should also be noted that all construction equipment is subject to the CARB In-Use Off-Road Diesel-Fueled Fleets Regulation. This regulation, which applies to all off-road diesel vehicles 25 horsepower or greater, limits unnecessary idling to five minutes, requires all construction fleets to be labeled and reported to CARB, bans Tier 0 equipment and phases out Tier 1 and 2 equipment (thereby replacing fleets with cleaner equipment), and requires that fleets comply with Best Available Control Technology requirements.

Based on the CalEEMod calculations for the project, construction is anticipated to last approximately 29 months and the project would result in on-site maximum annual emissions of 0.094 ton of PM_{10} exhaust. This maximum annual emissions rate was modeled over the entire construction period, and therefore is a conservative assessment. Based on AERSCREEN modeling results, the maximum 1-hour ground-level DPM concentration from construction activities would be 0.04404 micrograms per cubic meter ($\mu g/m^3$). This was converted to an annual average concentration of 0.00352 $\mu g/m^3$ using a conversion factor of 0.08 (U.S. EPA 1992). The resulting annual concentration was used in the equations discussed above. Using this methodology, it was calculated that the excess cancer risk

would be 1.26 in a million. AERSCREEN and cancer risk calculations are provided in Attachment 2. DPM generated by project construction is not expected to create conditions where the probability is greater than 10 in 1 million of contracting cancer. Additionally, the HQ would be 0.0007, which is less than one. Therefore, the project would not expose sensitive receptors to substantial pollutant concentrations associated with diesel particulate matter during construction that could result in excess cancer risks, and impacts would be less than significant.

Diesel Particulate Matter – Freeway

As discussed in Section 3.2.2 above, the CARB handbook indicates that siting new sensitive land uses within 500 feet of a freeway or urban roads with 100,000 or more vehicles per day should be avoided when possible. The project does not include a sensitive land use. Additionally, the project site is located more than 500 feet from I-15. Therefore, the project would not expose sensitive receptors to substantial pollutant concentrations associated with diesel particulate matter during operation, and impacts would be less than significant.

Carbon Monoxide Hot Spots

A CO hot spot is an area of localized CO pollution that is caused by severe vehicle congestion on major roadways, typically near congested intersections where idling and queuing occurs. Due to increased requirements for cleaner vehicles, equipment, and fuels, CO levels in the state have dropped substantially. All air basins are attainment or maintenance areas for CO. Therefore, more recent screening procedures based on more current methodologies have been developed. The Sacramento Metropolitan Air Quality Management District developed a screening threshold in 2011, which states that any project involving an intersection experiencing 31,600 vehicles per hour or more will require detailed analysis. In addition, the Bay Area Air Quality Management District developed a screening threshold in 2010 which states that any project involving an intersection experiencing 44,000 vehicles per hour would require detailed analysis. This analysis conservatively assesses potential CO hot spots using the Sacramento Metropolitan Air Quality Management District screening threshold of 31,600 vehicles per hour.

As shown in Table 6, the project would generate 3,932 daily trips, 471 AM peak hour trips and 383 PM peak hour trips. Peak hour turning volumes were calculated at 10 intersections in the vicinity of the project site as a part of the Traffic Impact Analysis. Morning peak hour volumes are projected to be 4,811 or less and afternoon peak hour volumes are projected to be 3,273 or less (Linscott, Law & Greenspan, Engineers 2024). The hourly turning volumes at nearby intersections are projected to be well less than 31,600 vehicles per hour. Therefore, the project would not expose sensitive receptors to substantial pollutant concentrations associated with a CO hot spot, and impacts would be less than significant.

Would the project result in other emissions, such as those leading to odors adversely affecting a substantial number of people?

The potential for an odor impact is dependent on a number of variables, including the nature of the odor source, distance between the receptor and odor source, and local meteorological conditions. During construction, construction equipment may generate some nuisance odors. Sensitive receptors near the project site include residential uses; however, exposure to odors associated with

project construction would be short term and temporary in nature. Further, per CARB's Airborne Toxic Control Measures 13 (California Code of Regulations Chapter 10 Section 2485), the applicant shall not allow idling time to exceed 5 minutes unless more time is required per engine manufacturers' specifications or for safety reasons. Therefore, project construction would not generate odors adversely affecting a substantial number of people, and impacts would be less than significant.

The following list provides some common types of facilities that are known producers of objectionable odors (Bay Area Air Quality Management District 2017). This list of facilities is not meant to be all-inclusive.

- Wastewater Treatment Plant
- Wastewater Pumping Facilities
- Sanitary Landfill
- Transfer Station
- Composting Facility
- Petroleum Refinery
- Asphalt Batch Plant
- Chemical Manufacturing
- Fiberglass Manufacturing
- Painting/Coating Operations
- Rendering Plant
- Coffee Roaster
- Food Processing Facility
- Confined Animal Facility/Feed Lot/Dairy
- Green Waste and Recycling Operations
- Metal Smelting Plants

The project does not include any of these uses that are typically associated with odor complaints. The project does not propose any uses or activities that would result in potentially significant operational-source odor impacts. The operations of the business would be enclosed inside of the new building. Additionally, SCAQMD Rule 402 acts to prevent occurrences of odor nuisances. Therefore, project operation would not generate odors adversely affecting a substantial number of people, and impacts would be less than significant.

7.0 Conclusions

The project's potential to result in impacts to air quality was assessed in accordance with the guidelines, policies, and standards established by the City and the SCAQMD. The SCAQMD prepared the 2022 AQMP, which represents its contribution to the SIP, to outline the district's strategy for achieving attainment of federal and state AAQS. The 2022 AQMP provides an overview of air quality and sources of air pollution and identifies the pollution-control measures needed to meet clean air standards. As discussed in this analysis, emissions associated with the project are accounted for in the 2022 AQMP. Therefore, the project would not result in an exceedance of the growth forecasting used to develop the 2022 AQMP. Additionally, the project would not result in an air quality violation.

Therefore, the project would not conflict with or obstruct the implementation of the 2022 AQMP or applicable portions of the SIP, and impacts would be less than significant.

As shown in Tables 5 and 7 above, project construction and operation would not exceed the SCAQMD's thresholds of significance. Therefore, the project would not result in regional emissions that would exceed the NAAQS or CAAQS or contribute to existing violations, and impacts would be less than significant.

On-site emissions during construction and operation would be less than the SCAQMD LSTs. Project construction would not result in the exposure of sensitive receptors to significant levels of DPM that could result in excess cancer risks. The project would not introduce site sensitive land uses within 500 feet of a freeway or urban roads with 100,000 or more vehicles per day and would not result in the creation of a CO hot spot. Therefore, construction and operation of the project would not expose sensitive receptors to substantial pollutant concentrations, and impacts would be less than significant.

During construction, potential odor sources would be associated with construction equipment; however, exposure to odors associated with project construction would be short term and temporary in nature. Operation of the project would not include any uses that would generate substantial odors. Therefore, the project would not generate odors adversely affecting a substantial number of people, and impacts would be less than significant.

8.0 References Cited

Bay Area Air Quality Management District
2017 California Environmental Quality Act Air Quality Guidelines. May.

California Air Pollution Control Officers Association
2022 California Emissions Estimator Model (CalEEMod). User's Guide Version 2022.1. April.

California Air Resources Board (CARB)
2000 Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles. California Air Resources Board. Stationary Source Division, Mobile Source Control Division. October.

2005 Air Quality and Land Use Handbook: A Community Health Perspective. California Air Resources Board. April.

2016 Ambient Air Quality Standards. California Air Resources Board. October 1.

2023 California Air Quality Data Statistics. California Air Resources Board Internet Site. http://www.arb.ca.gov/adam/welcome.html. Accessed December 21, 2023.

Linscott, Law & Greenspan, Engineers (LLG)
2024 Transportation Impact Analysis. January.

Office of Environmental Health Hazard Assessment (OEHHA)
2015 Air Toxics Hot Spots Program Guidance Manual for the Preparation of Risk Assessments (Guidance Manual), February.

Riverside, County of
2015 General Plan. December.

South Coast Air Quality Management District (SCAQMD)
1993 SCAQMD CEQA Air Handbook. November.

2005 Sample Construction Scenarios for Projects Less Than Five Acres in Size. February 2005.

2008 Final Localized Significance Threshold Methodology. July.

2023 SCAQMD Air Quality Significance Thresholds. Updated March 2023.

Southern California Association of Governments (SCAG)
2020 Connect SoCal – The 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy.

U.S. Environmental Protection Agency (U.S. EPA)
1992 Screening Procedures for Estimating the Air Quality Impact of Stationary Sources.

Western Regional Climate Center
2023 Western U.S. Climate Historical Summaries. https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca2805.

ATTACHMENTS

ATTACHMENT 1

CalEEMod Output

Temescal Commercial Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

2.2. Construction Emissions by Year, Unmitigated

2.4. Operations Emissions Compared Against Thresholds

2.5. Operations Emissions by Sector, Unmitigated

3. Construction Emissions Details

3.1. Demolition (2025) - Unmitigated

3.3. Site Preparation (2025) - Unmitigated

3.5. Grading (2025) - Unmitigated

3.7. Building Construction (2025) - Unmitigated

3.9. Building Construction (2026) - Unmitigated

3.11. Building Construction (2027) - Unmitigated

3.13. Paving (2027) - Unmitigated

3.15. Architectural Coating (2027) - Unmitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Temescal Commercial
Construction Start Date	1/1/2025
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.20
Precipitation (days)	21.8
Location	33.77423628572711, -117.4898845748069
County	Riverside-South Coast
City	Unincorporated
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5582
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

Manufacturing	188	1000sqft	25.7	188,000	138,484	0.00	—	—
Fast Food Restaurant with Drive Thru	2.90	1000sqft	0.74	2,900	0.00	0.00	—	—
Fast Food Restaurant with Drive Thru	2.50	1000sqft	0.93	2,500	0.00	0.00	—	—
Fast Food Restaurant with Drive Thru	5.00	1000sqft	1.82	5,000	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.08	52.7	34.2	30.9	0.09	1.31	4.91	6.23	1.21	1.78	3.00	—	10,901	10,901	0.35	0.70	9.61	11,127
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.06	52.7	34.4	31.2	0.09	1.37	7.89	9.26	1.26	3.99	5.25	—	10,880	10,880	0.35	0.70	0.25	11,097
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.77	5.27	13.5	15.6	0.03	0.52	1.91	2.43	0.48	0.63	1.11	—	4,192	4,192	0.15	0.22	2.16	4,264
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	0.32	0.96	2.46	2.84	0.01	0.09	0.35	0.44	0.09	0.12	0.20	—	694	694	0.02	0.04	0.36	706
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	75.0	100	550	150	—	—	150	—	—	55.0	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	75.0	100	550	150	—	—	150	—	—	55.0	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	4.08	3.35	34.2	30.9	0.09	1.31	4.91	6.23	1.21	1.78	3.00	—	10,901	10,901	0.35	0.70	9.61	11,127
2026	1.72	1.44	11.2	19.3	0.03	0.39	1.37	1.76	0.36	0.33	0.70	—	4,525	4,525	0.17	0.21	6.57	4,599
2027	0.21	52.7	0.89	2.23	< 0.005	0.02	0.22	0.24	0.02	0.05	0.07	—	359	359	0.01	0.01	0.70	363
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	4.06	3.38	34.4	31.2	0.09	1.37	7.89	9.26	1.26	3.99	5.25	—	10,880	10,880	0.35	0.70	0.25	11,097
2026	1.70	1.42	11.3	17.8	0.03	0.39	1.37	1.76	0.36	0.33	0.70	—	4,434	4,434	0.14	0.21	0.17	4,500
2027	1.63	52.7	10.8	17.4	0.03	0.35	1.37	1.72	0.32	0.33	0.66	—	4,396	4,396	0.13	0.20	0.15	4,460
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2025	1.77	1.47	13.5	15.6	0.03	0.52	1.91	2.43	0.48	0.63	1.11	—	4,192	4,192	0.15	0.22	2.16	4,264
2026	1.21	1.02	8.11	12.9	0.02	0.28	0.96	1.24	0.26	0.23	0.49	—	3,176	3,176	0.10	0.15	2.02	3,226
2027	0.18	5.27	1.24	2.02	< 0.005	0.05	0.10	0.15	0.04	0.02	0.07	—	394	394	0.01	0.01	0.17	398
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.32	0.27	2.46	2.84	0.01	0.09	0.35	0.44	0.09	0.12	0.20	—	694	694	0.02	0.04	0.36	706
2026	0.22	0.19	1.48	2.35	< 0.005	0.05	0.18	0.23	0.05	0.04	0.09	—	526	526	0.02	0.03	0.33	534
2027	0.03	0.96	0.23	0.37	< 0.005	0.01	0.02	0.03	0.01	< 0.005	0.01	—	65.3	65.3	< 0.005	< 0.005	0.03	66.0

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	21.7	24.1	21.1	218	0.53	0.54	46.0	46.5	0.51	11.7	12.2	280	57,415	57,695	30.4	2.20	246	59,357
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	19.1	21.7	22.5	172	0.49	0.52	46.0	46.5	0.50	11.7	12.2	280	54,009	54,288	30.5	2.27	69.9	55,797
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	17.5	20.6	15.6	130	0.31	0.40	28.3	28.7	0.38	7.18	7.56	280	35,721	36,001	30.0	1.53	113	37,320
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.19	3.77	2.85	23.7	0.06	0.07	5.17	5.24	0.07	1.31	1.38	46.3	5,914	5,960	4.97	0.25	18.7	6,179
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	55.0	55.0	550	150	—	—	150	—	—	55.0	—	—	—	—	—	—	—

Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	55.0	55.0	550	150	—	—	150	—	—	55.0	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	19.8	17.8	18.5	207	0.51	0.33	46.0	46.3	0.31	11.7	12.0	—	52,047	52,047	1.78	1.95	181	52,852
Area	1.53	6.17	0.07	8.63	< 0.005	0.02	—	0.02	0.01	—	0.01	—	35.5	35.5	< 0.005	< 0.005	—	35.6
Energy	0.27	0.14	2.49	2.09	0.01	0.19	—	0.19	0.19	—	0.19	—	5,021	5,021	0.46	0.03	—	5,041
Water	—	—	—	—	—	—	—	—	—	—	—	89.4	312	401	9.19	0.22	—	697
Waste	—	—	—	—	—	—	—	—	—	—	—	190	0.00	190	19.0	0.00	—	665
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	65.2	65.2
Total	21.7	24.1	21.1	218	0.53	0.54	46.0	46.5	0.51	11.7	12.2	280	57,415	57,695	30.4	2.20	246	59,357
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	18.8	16.8	20.0	170	0.48	0.33	46.0	46.3	0.31	11.7	12.0	—	48,676	48,676	1.82	2.02	4.69	49,328
Area	—	4.75	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.27	0.14	2.49	2.09	0.01	0.19	—	0.19	0.19	—	0.19	—	5,021	5,021	0.46	0.03	—	5,041
Water	—	—	—	—	—	—	—	—	—	—	—	89.4	312	401	9.19	0.22	—	697
Waste	—	—	—	—	—	—	—	—	—	—	—	190	0.00	190	19.0	0.00	—	665
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	65.2	65.2

Total	19.1	21.7	22.5	172	0.49	0.52	46.0	46.5	0.50	11.7	12.2	280	54,009	54,288	30.5	2.27	69.9	55,797
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	16.1	14.8	13.1	122	0.30	0.20	28.3	28.5	0.19	7.18	7.36	—	30,364	30,364	1.35	1.28	47.7	30,827
Area	1.05	5.72	0.05	5.91	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.3	24.3	< 0.005	< 0.005	—	24.4
Energy	0.27	0.14	2.49	2.09	0.01	0.19	—	0.19	0.19	—	0.19	—	5,021	5,021	0.46	0.03	—	5,041
Water	—	—	—	—	—	—	—	—	—	—	—	89.4	312	401	9.19	0.22	—	697
Waste	—	—	—	—	—	—	—	—	—	—	—	190	0.00	190	19.0	0.00	—	665
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	65.2	65.2
Total	17.5	20.6	15.6	130	0.31	0.40	28.3	28.7	0.38	7.18	7.56	280	35,721	36,001	30.0	1.53	113	37,320
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	2.94	2.70	2.38	22.2	0.05	0.04	5.17	5.21	0.03	1.31	1.34	—	5,027	5,027	0.22	0.21	7.90	5,104
Area	0.19	1.04	0.01	1.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.02	4.02	< 0.005	< 0.005	—	4.04
Energy	0.05	0.02	0.45	0.38	< 0.005	0.03	—	0.03	0.03	—	0.03	—	831	831	0.08	< 0.005	—	835
Water	—	—	—	—	—	—	—	—	—	—	—	14.8	51.7	66.5	1.52	0.04	—	115
Waste	—	—	—	—	—	—	—	—	—	—	—	31.5	0.00	31.5	3.15	0.00	—	110
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.8	10.8
Total	3.19	3.77	2.85	23.7	0.06	0.07	5.17	5.24	0.07	1.31	1.38	46.3	5,914	5,960	4.97	0.25	18.7	6,179

3. Construction Emissions Details

3.1. Demolition (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.86	2.40	22.2	19.9	0.03	0.92	—	0.92	0.84	—	0.84	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	2.31	2.31	—	0.35	0.35	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.20	1.82	1.64	< 0.005	0.08	—	0.08	0.07	—	0.07	—	282	282	0.01	< 0.005	—	282
Demolition	—	—	—	—	—	—	0.19	0.19	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.33	0.30	< 0.005	0.01	—	0.01	0.01	—	0.01	—	46.6	46.6	< 0.005	< 0.005	—	46.8
Demolition	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	194	194	0.01	0.01	0.02	197
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.12	0.04	3.37	0.80	0.02	0.06	0.76	0.82	0.06	0.21	0.27	—	2,910	2,910	0.05	0.46	0.16	3,048
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	16.2	16.2	< 0.005	< 0.005	0.03	16.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.28	0.07	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	239	239	< 0.005	0.04	0.22	251
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.68	2.68	< 0.005	< 0.005	< 0.005	2.72
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	39.6	39.6	< 0.005	0.01	0.04	41.5

3.3. Site Preparation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.94	3.31	31.6	30.2	0.05	1.37	—	1.37	1.26	—	1.26	—	5,295	5,295	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.22	0.18	1.73	1.65	< 0.005	0.07	—	0.07	0.07	—	0.07	—	290	290	0.01	< 0.005	—	291
Dust From Material Movement	—	—	—	—	—	—	0.42	0.42	—	0.22	0.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.32	0.30	< 0.005	0.01	—	0.01	0.01	—	0.01	—	48.0	48.0	< 0.005	< 0.005	—	48.2
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.08	1.02	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	227	227	0.01	0.01	0.02	230
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.6	12.6	< 0.005	< 0.005	0.02	12.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.08	2.08	< 0.005	< 0.005	< 0.005	2.11
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.80	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	—	6,599	6,599	0.27	0.05	—	6,622
Dust From Material Movement	—	—	—	—	—	—	3.60	3.60	—	1.43	1.43	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.80	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	—	6,599	6,599	0.27	0.05	—	6,622
Dust From Material Movement	—	—	—	—	—	—	3.60	3.60	—	1.43	1.43	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.47	0.39	3.66	3.49	0.01	0.15	—	0.15	0.14	—	0.14	—	814	814	0.03	0.01	—	816
Dust From Material Movement	—	—	—	—	—	—	0.44	0.44	—	0.18	0.18	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.07	0.67	0.64	< 0.005	0.03	—	0.03	0.03	—	0.03	—	135	135	0.01	< 0.005	—	135
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.09	0.09	1.54	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	282	282	0.01	0.01	1.04	286
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.17	0.06	4.46	1.09	0.03	0.08	1.06	1.13	0.08	0.30	0.37	—	4,020	4,020	0.07	0.63	8.57	4,219
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.10	1.17	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	259	259	0.01	0.01	0.03	262
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.16	0.06	4.66	1.11	0.03	0.08	1.06	1.13	0.08	0.30	0.37	—	4,022	4,022	0.07	0.63	0.22	4,213
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.15	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	32.4	32.4	< 0.005	< 0.005	0.06	32.8

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	0.01	0.58	0.14	< 0.005	0.01	0.13	0.14	0.01	0.04	0.05	—	496	496	0.01	0.08	0.45	520
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.36	5.36	< 0.005	< 0.005	0.01	5.43
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.11	0.02	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	82.1	82.1	< 0.005	0.01	0.08	86.0

3.7. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.60	0.51	4.68	5.84	0.01	0.19	—	0.19	0.18	—	0.18	—	1,074	1,074	0.04	0.01	—	1,078
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.85	1.07	< 0.005	0.04	—	0.04	0.03	—	0.03	—	178	178	0.01	< 0.005	—	179
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.45	0.37	0.36	6.44	0.00	0.00	1.09	1.09	0.00	0.26	0.26	—	1,174	1,174	0.05	0.04	4.32	1,192
Vendor	0.04	0.02	1.09	0.34	0.01	0.01	0.28	0.29	0.01	0.08	0.09	—	995	995	0.02	0.15	2.82	1,043
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.39	0.35	0.40	4.86	0.00	0.00	1.09	1.09	0.00	0.26	0.26	—	1,080	1,080	0.05	0.04	0.11	1,093
Vendor	0.04	0.02	1.14	0.35	0.01	0.01	0.28	0.29	0.01	0.08	0.09	—	996	996	0.02	0.15	0.07	1,041
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.16	0.20	2.30	0.00	0.00	0.48	0.48	0.00	0.11	0.11	—	490	490	0.02	0.02	0.83	497
Vendor	0.02	0.01	0.51	0.15	< 0.005	0.01	0.12	0.13	0.01	0.03	0.04	—	446	446	0.01	0.07	0.55	467
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.04	0.42	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	81.1	81.1	< 0.005	< 0.005	0.14	82.3
Vendor	< 0.005	< 0.005	0.09	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	73.8	73.8	< 0.005	0.01	0.09	77.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.91	0.77	7.04	9.26	0.02	0.27	—	0.27	0.25	—	0.25	—	1,712	1,712	0.07	0.01	—	1,718
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	1.28	1.69	< 0.005	0.05	—	0.05	0.05	—	0.05	—	283	283	0.01	< 0.005	—	284
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.39	0.35	0.33	5.98	0.00	0.00	1.09	1.09	0.00	0.26	0.26	—	1,149	1,149	0.05	0.04	3.89	1,166
Vendor	0.04	0.02	1.05	0.32	0.01	0.01	0.28	0.29	0.01	0.08	0.09	—	979	979	0.02	0.15	2.68	1,027

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.37	0.33	0.36	4.54	0.00	0.00	1.09	1.09	0.00	0.26	0.26	—	1,057	1,057	0.02	0.04	0.10	1,070
Vendor	0.04	0.02	1.09	0.33	0.01	0.01	0.28	0.29	0.01	0.08	0.09	—	980	980	0.02	0.15	0.07	1,025
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.27	0.24	0.28	3.39	0.00	0.00	0.77	0.77	0.00	0.18	0.18	—	764	764	0.01	0.03	1.20	775
Vendor	0.03	0.01	0.78	0.23	0.01	0.01	0.20	0.21	0.01	0.05	0.06	—	699	699	0.02	0.11	0.82	733
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.05	0.62	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	127	127	< 0.005	< 0.005	0.20	128
Vendor	0.01	< 0.005	0.14	0.04	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	116	116	< 0.005	0.02	0.14	121
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Building Construction (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.42	0.58	< 0.005	0.02	—	0.02	0.01	—	0.01	—	108	108	< 0.005	< 0.005	—	108
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	17.9	17.9	< 0.005	< 0.005	—	17.9
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.36	0.32	0.33	4.18	0.00	0.00	1.09	1.09	0.00	0.26	0.26	—	1,037	1,037	0.01	0.04	0.09	1,050
Vendor	0.04	0.02	1.05	0.32	0.01	0.01	0.28	0.29	0.01	0.08	0.09	—	962	962	0.02	0.14	0.06	1,005
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.02	0.20	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	47.3	47.3	< 0.005	< 0.005	0.07	47.9
Vendor	< 0.005	< 0.005	0.05	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	43.3	43.3	< 0.005	0.01	0.05	45.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.83	7.83	< 0.005	< 0.005	0.01	7.93
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.16	7.16	< 0.005	< 0.005	0.01	7.49
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Paving (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	0.74	6.94	9.95	0.01	0.30	—	0.30	0.27	—	0.27	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.74	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.67	0.95	< 0.005	0.03	—	0.03	0.03	—	0.03	—	145	145	0.01	< 0.005	—	145
Paving	—	0.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.12	0.17	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.06	0.75	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	187	187	< 0.005	0.01	0.02	189
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	18.1	18.1	< 0.005	< 0.005	0.03	18.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.00	3.00	< 0.005	< 0.005	< 0.005	3.04
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Architectural Coating (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	52.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	52.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.8	12.8	< 0.005	< 0.005	—	12.8
Architectural Coatings	—	5.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.12	2.12	< 0.005	< 0.005	—	2.13
Architectural Coatings	—	0.92	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.06	1.11	0.00	0.00	0.22	0.22	0.00	0.05	0.05	—	226	226	< 0.005	0.01	0.70	229
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.84	0.00	0.00	0.22	0.22	0.00	0.05	0.05	—	207	207	< 0.005	0.01	0.02	210
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	20.1	20.1	< 0.005	< 0.005	0.03	20.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.34	3.34	< 0.005	< 0.005	< 0.005	3.38
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manufacturing	5.01	4.53	2.79	57.6	0.12	0.05	11.6	11.7	0.05	2.94	2.99	—	11,975	11,975	0.42	0.28	40.8	12,111

Fast Food Restaurant with Drive Thru	14.8	13.3	15.7	150	0.39	0.28	34.4	34.6	0.27	8.72	8.99	—	40,072	40,072	1.36	1.66	140	40,741
Total	19.8	17.8	18.5	207	0.51	0.33	46.0	46.3	0.31	11.7	12.0	—	52,047	52,047	1.78	1.95	181	52,852
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manufacturing	4.80	4.33	3.10	47.0	0.11	0.05	11.6	11.7	0.05	2.94	2.99	—	11,055	11,055	0.43	0.30	1.06	11,157
Fast Food Restaurant with Drive Thru	14.0	12.5	16.9	123	0.37	0.28	34.4	34.6	0.27	8.72	8.99	—	37,621	37,621	1.40	1.72	3.63	38,172
Total	18.8	16.8	20.0	170	0.48	0.33	46.0	46.3	0.31	11.7	12.0	—	48,676	48,676	1.82	2.02	4.69	49,328
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manufacturing	0.87	0.78	0.58	8.93	0.02	0.01	2.09	2.10	0.01	0.53	0.54	—	1,852	1,852	0.07	0.05	2.91	1,872
Fast Food Restaurant with Drive Thru	2.07	1.91	1.80	13.3	0.03	0.03	3.08	3.10	0.03	0.78	0.81	—	3,175	3,175	0.15	0.16	4.99	3,231
Total	2.94	2.70	2.38	22.2	0.05	0.04	5.17	5.21	0.03	1.31	1.34	—	5,027	5,027	0.22	0.21	7.90	5,104

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	1,706	1,706	0.16	0.02	—	1,716
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	346	346	0.03	< 0.005	—	348
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,053	2,053	0.20	0.02	—	2,065
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	1,706	1,706	0.16	0.02	—	1,716
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	346	346	0.03	< 0.005	—	348
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,053	2,053	0.20	0.02	—	2,065
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	282	282	0.03	< 0.005	—	284
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	57.3	57.3	0.01	< 0.005	—	57.7
Total	—	—	—	—	—	—	—	—	—	—	—	—	340	340	0.03	< 0.005	—	342

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manufacturing	0.24	0.12	2.17	1.82	0.01	0.16	—	0.16	0.16	—	0.16	—	2,588	2,588	0.23	< 0.005	—	2,595
Fast Food Restaurant with Drive Thru	0.04	0.02	0.32	0.27	< 0.005	0.02	—	0.02	0.02	—	0.02	—	380	380	0.03	< 0.005	—	381
Total	0.27	0.14	2.49	2.09	0.01	0.19	—	0.19	0.19	—	0.19	—	2,968	2,968	0.26	0.01	—	2,976
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manufacturing	0.24	0.12	2.17	1.82	0.01	0.16	—	0.16	0.16	—	0.16	—	2,588	2,588	0.23	< 0.005	—	2,595
Fast Food Restaurant with Drive Thru	0.04	0.02	0.32	0.27	< 0.005	0.02	—	0.02	0.02	—	0.02	—	380	380	0.03	< 0.005	—	381
Total	0.27	0.14	2.49	2.09	0.01	0.19	—	0.19	0.19	—	0.19	—	2,968	2,968	0.26	0.01	—	2,976
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manufacturing	0.04	0.02	0.40	0.33	< 0.005	0.03	—	0.03	0.03	—	0.03	—	428	428	0.04	< 0.005	—	430
Fast Food Restaurant with Drive Thru	0.01	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	62.9	62.9	0.01	< 0.005	—	63.1
Total	0.05	0.02	0.45	0.38	< 0.005	0.03	—	0.03	0.03	—	0.03	—	491	491	0.04	< 0.005	—	493

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	4.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.53	1.42	0.07	8.63	< 0.005	0.02	—	0.02	0.01	—	0.01	—	35.5	35.5	< 0.005	< 0.005	—	35.6
Total	1.53	6.17	0.07	8.63	< 0.005	0.02	—	0.02	0.01	—	0.01	—	35.5	35.5	< 0.005	< 0.005	—	35.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	4.25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	4.75	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.77	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	—	0.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.19	0.18	0.01	1.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.02	4.02	< 0.005	< 0.005	—	4.04
Total	0.19	1.04	0.01	1.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.02	4.02	< 0.005	< 0.005	—	4.04

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	83.3	292	375	8.57	0.21	—	651
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	6.05	20.4	26.4	0.62	0.01	—	46.4
Total	—	—	—	—	—	—	—	—	—	—	—	89.4	312	401	9.19	0.22	—	697
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	83.3	292	375	8.57	0.21	—	651
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	6.05	20.4	26.4	0.62	0.01	—	46.4

Total	—	—	—	—	—	—	—	—	—	—	—	89.4	312	401	9.19	0.22	—	697
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	13.8	48.3	62.1	1.42	0.03	—	108
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	1.00	3.37	4.38	0.10	< 0.005	—	7.69
Total	—	—	—	—	—	—	—	—	—	—	—	14.8	51.7	66.5	1.52	0.04	—	115

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	126	0.00	126	12.6	0.00	—	440
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	64.6	0.00	64.6	6.45	0.00	—	226
Total	—	—	—	—	—	—	—	—	—	—	—	190	0.00	190	19.0	0.00	—	665
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	126	0.00	126	12.6	0.00	—	440

Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	64.6	0.00	64.6	6.45	0.00	—	226
Total	—	—	—	—	—	—	—	—	—	—	—	190	0.00	190	19.0	0.00	—	665
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	20.8	0.00	20.8	2.08	0.00	—	72.8
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	10.7	0.00	10.7	1.07	0.00	—	37.4
Total	—	—	—	—	—	—	—	—	—	—	—	31.5	0.00	31.5	3.15	0.00	—	110

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	48.9	48.9
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16.3	16.3
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	65.2	65.2

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	48.9	48.9
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16.3	16.3
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	65.2	65.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.10	8.10
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.69	2.69
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10.8	10.8

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/1/2025	2/12/2025	5.00	30.0	—
Site Preparation	Site Preparation	2/13/2025	3/13/2025	5.00	20.0	—

Grading	Grading	3/14/2025	5/16/2025	5.00	45.0	—
Building Construction	Building Construction	5/17/2025	1/23/2027	5.00	440	—
Paving	Paving	1/24/2027	3/14/2027	5.00	35.0	—
Architectural Coating	Architectural Coating	3/15/2027	5/3/2027	5.00	35.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42

Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	42.2	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	58.3	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	83.3	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	32.5	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT

Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	16.7	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	297,600	99,200	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	110,070	—
Site Preparation	—	—	30.0	0.00	—

Grading	—	21,000	135	0.00	—
Paving	0.00	0.00	0.00	0.00	9.85

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Manufacturing	9.85	100%
Fast Food Restaurant with Drive Thru	0.00	0%
Fast Food Restaurant with Drive Thru	0.00	0%
Fast Food Restaurant with Drive Thru	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	532	0.03	< 0.005
2026	0.00	532	0.03	< 0.005
2027	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year

Manufacturing	1,006	1,006	1,006	367,117	16,719	16,719	16,719	6,102,579
Fast Food Restaurant with Drive Thru	247	247	247	90,152	1,219	4,106	4,106	745,933
Fast Food Restaurant with Drive Thru	970	970	970	354,050	4,787	16,124	16,124	2,929,456
Fast Food Restaurant with Drive Thru	1,700	1,700	1,700	620,500	8,389	28,259	28,259	5,134,098

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	297,600	99,200	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Manufacturing	1,798,985	346	0.0330	0.0040	8,074,661
Fast Food Restaurant with Drive Thru	101,833	346	0.0330	0.0040	330,771
Fast Food Restaurant with Drive Thru	87,787	346	0.0330	0.0040	285,147
Fast Food Restaurant with Drive Thru	175,575	346	0.0330	0.0040	570,294

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Manufacturing	43,475,000	2,195,762
Fast Food Restaurant with Drive Thru	880,248	0.00
Fast Food Restaurant with Drive Thru	758,834	0.00
Fast Food Restaurant with Drive Thru	1,517,669	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Manufacturing	233	—
Fast Food Restaurant with Drive Thru	33.4	—
Fast Food Restaurant with Drive Thru	28.8	—
Fast Food Restaurant with Drive Thru	57.6	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Manufacturing	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0
Fast Food Restaurant with Drive Thru	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Fast Food Restaurant with Drive Thru	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Fast Food Restaurant with Drive Thru	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Fast Food Restaurant with Drive Thru	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Fast Food Restaurant with Drive Thru	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Fast Food Restaurant with Drive Thru	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Fast Food Restaurant with Drive Thru	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Fast Food Restaurant with Drive Thru	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Fast Food Restaurant with Drive Thru	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	24.7	annual days of extreme heat
Extreme Precipitation	2.75	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	36.5	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A

Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	80.0
AQ-PM	67.8
AQ-DPM	67.6
Drinking Water	84.6
Lead Risk Housing	0.21
Pesticides	0.00
Toxic Releases	57.5
Traffic	98.0
Effect Indicators	—
CleanUp Sites	20.5
Groundwater	22.1
Haz Waste Facilities/Generators	53.5
Impaired Water Bodies	0.00
Solid Waste	35.7
Sensitive Population	—
Asthma	14.2
Cardio-vascular	59.5
Low Birth Weights	7.95
Socioeconomic Factor Indicators	—
Education	34.4
Housing	27.2
Linguistic	23.8
Poverty	28.4
Unemployment	9.72

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	67.39381496
Employed	33.54292314
Median HI	59.36096497
Education	—
Bachelor's or higher	53.83036058
High school enrollment	13.01167715
Preschool enrollment	41.57577313
Transportation	—
Auto Access	98.98626973
Active commuting	56.40959836
Social	—
2-parent households	63.9291672
Voting	60.6698319
Neighborhood	—
Alcohol availability	87.60426023
Park access	6.403182343
Retail density	25.70255357
Supermarket access	32.86282561
Tree canopy	17.84935198
Housing	—
Homeownership	93.09636854
Housing habitability	80.67496471
Low-inc homeowner severe housing cost burden	10.29128705

Low-inc renter severe housing cost burden	92.26228667
Uncrowded housing	79.21211344
Health Outcomes	—
Insured adults	46.18247145
Arthritis	65.9
Asthma ER Admissions	75.3
High Blood Pressure	69.1
Cancer (excluding skin)	57.8
Asthma	37.3
Coronary Heart Disease	83.6
Chronic Obstructive Pulmonary Disease	56.7
Diagnosed Diabetes	84.4
Life Expectancy at Birth	65.8
Cognitively Disabled	70.6
Physically Disabled	95.1
Heart Attack ER Admissions	34.7
Mental Health Not Good	44.5
Chronic Kidney Disease	85.5
Obesity	38.6
Pedestrian Injuries	44.2
Physical Health Not Good	59.3
Stroke	80.6
Health Risk Behaviors	—
Binge Drinking	18.0
Current Smoker	31.7
No Leisure Time for Physical Activity	53.7
Climate Change Exposures	—

Wildfire Risk	20.0
SLR Inundation Area	0.0
Children	81.0
Elderly	17.9
English Speaking	75.7
Foreign-born	45.7
Outdoor Workers	53.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	75.6
Traffic Density	86.0
Traffic Access	23.0
Other Indices	—
Hardship	52.3
Other Decision Support	—
2016 Voting	67.8

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	26.0
Healthy Places Index Score for Project Location (b)	51.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	188,000 sf manufacturing 2,900 sf fast food w/drive through 2,500 sf coffee shop w/drive through 5,000 sf restaurant w/ drive through
Construction: Paving	9.85 acres paved
Operations: Vehicle Data	Trip rates obtained from LLG Scoping Agreement
Operations: Fleet Mix	Truck percentages modified based on LLG Scoping Agreement

ATTACHMENT 2

Construction HRA/AERSCREEN Output

8622 Temescal Commercial
Construction DPM HRA

Construction Health Risk Calculations

Annual PM Exhaust Generation

Annual Tons/Year	Pounds/year	lbs/day	lbs/hr	g/day	sec/day	g/sec
0.094	188	5.15E-01	2.15E-02	234	86,400	2.70E-03

Max 1-hour concentration	4.40E-02	µg/m^3
Annualized average concentration (0.08)	3.52E-03	µg/m^3

Onsite Maximum Exposure	3rd Trimester	0<2	2<9	2<16	16<30	16-70
Cair	3.52E-03	3.52E-03	3.52E-03	3.52E-03	3.52E-03	3.52E-03
DBR	361	1090	861	745	335	290
A	1	1	1	1	1	1
EF	0.96	0.96	0.96	0.96	0.96	0.96
Dose-air	1.22E-06	3.69E-06	2.91E-06	2.52E-06	1.13E-06	9.81E-07
CPF	1.10	1.10	1.10	1.10	1.10	1.10
ASF	10	10	3	3	1	1
ED (years of construction = 2.4)	0.25	2.000	2.417	2.417	2.417	2.417
AT	70	70	70	70	70	70
FAH	0.85	0.85	0.72	0.72	0.73	0.73
Risk in 1 mill	**0.04**	**0.98**	**0.24**	**0.21**	**0.03**	**0.03**
	5.00	5.00	5.00	5.00	5.00	5.00
Chronic Exposure	**0.0007**	**0.0007**	**0.0007**	**0.0007**	**0.0007**	**0.0007**

0-9	1.26	4.67
0-30	1.26	7.08
0-70	1.26	7.08

AERSCREEN 11126 / AERMOD 1206 12/20/23
11:13:52

TITLE: Temescal Commercial

********** VOLUME PARAMETERS **********

SOURCE EMISSION RATE: 0.270E-02 g/s 0.214E-01 lb/hr
VOLUME HEIGHT: 5.00 meters 16.40 feet
INITIAL LATERAL DIMENSION: 200.00 meters 656.17 feet
INITIAL VERTICAL DIMENSION: 300.00 meters 984.25 feet
RURAL OR URBAN: URBAN
POPULATION: 20000

FLAGPOLE RECEPTOR HEIGHT: 1.50 meters 4.92 feet

INITIAL PROBE DISTANCE = 5000. meters 16404. feet

********** BUILDING DOWNWASH PARAMETERS **********

BUILDING DOWNWASH NOT USED FOR NON-POINT SOURCES

********** PROBE ANALYSIS **********
25 meter receptor spacing: 431. meters - 5000. meters

SECTOR	Zo LENGTH	ROUGHNESS	1-HR CONC (ug/m3)	DIST (m)	TEMPORAL PERIOD
1*	1.000		0.4404E-01	431.0	WIN

* = worst case flow sector

********** MAKEMET METEOROLOGY PARAMETERS **********

MIN/MAX TEMPERATURE: 250.0 / 310.0 (K)

MINIMUM WIND SPEED: 0.5 m/s

ANEMOMETER HEIGHT: 10.000 meters

SURFACE CHARACTERISTICS INPUT: AERMET SEASONAL TABLES

DOMINANT SURFACE PROFILE: Urban
DOMINANT CLIMATE TYPE: Average Moisture
DOMINANT SEASON: Winter

ALBEDO: 0.35
BOWEN RATIO: 1.50
ROUGHNESS LENGTH: 1.000 (meters)

METEOROLOGY CONDITIONS USED TO PREDICT OVERALL MAXIMUM IMPACT

YR	MO	DY	JDY	HR
10	01	16	16	01

H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS
-0.41	0.043	-9.000	0.020	-999.	21.	19.3	1.000	1.50	0.35	0.50

HT	REF TA	HT
10.0	310.0	2.0

METEOROLOGY CONDITIONS USED TO PREDICT AMBIENT BOUNDARY IMPACT

YR	MO	DY	JDY	HR
10	01	16	16	01

H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS
-0.41	0.043	-9.000	0.020	-999.	21.	19.3	1.000	1.50	0.35	0.50

HT	REF TA	HT
10.0	310.0	2.0

********** AERSCREEN AUTOMATED DISTANCES **********
OVERALL MAXIMUM CONCENTRATIONS BY DISTANCE

MAXIMUM DIST (m)	MAXIMUM 1-HR CONC (ug/m3)	MAXIMUM DIST (m)	MAXIMUM 1-HR CONC (ug/m3)
431.00	0.4404E-01	2725.00	0.2092E-01
450.00	0.4314E-01	2750.00	0.2082E-01
475.00	0.4205E-01	2775.00	0.2072E-01
500.00	0.4106E-01	2800.00	0.2061E-01
525.00	0.4015E-01	2825.00	0.2051E-01
550.00	0.3931E-01	2850.00	0.2041E-01
575.00	0.3853E-01	2875.00	0.2031E-01
600.00	0.3780E-01	2900.00	0.2021E-01
625.00	0.3712E-01	2925.00	0.2012E-01
650.00	0.3648E-01	2950.00	0.2002E-01
675.00	0.3588E-01	2975.00	0.1992E-01
700.00	0.3531E-01	3000.00	0.1983E-01
725.00	0.3492E-01	3025.00	0.1974E-01
750.00	0.3464E-01	3050.00	0.1964E-01
775.00	0.3435E-01	3075.00	0.1955E-01
800.00	0.3407E-01	3100.00	0.1946E-01
825.00	0.3380E-01	3125.00	0.1937E-01
850.00	0.3353E-01	3150.00	0.1928E-01
875.00	0.3327E-01	3175.00	0.1919E-01
900.00	0.3301E-01	3200.00	0.1911E-01
925.00	0.3275E-01	3225.00	0.1902E-01
950.00	0.3250E-01	3250.00	0.1893E-01
975.00	0.3225E-01	3275.00	0.1885E-01
1000.00	0.3200E-01	3300.00	0.1876E-01
1025.00	0.3176E-01	3325.00	0.1868E-01
1050.00	0.3152E-01	3350.00	0.1860E-01
1075.00	0.3129E-01	3375.00	0.1852E-01
1100.00	0.3106E-01	3400.00	0.1843E-01
1125.00	0.3083E-01	3425.00	0.1835E-01
1150.00	0.3061E-01	3450.00	0.1827E-01
1175.00	0.3039E-01	3475.00	0.1819E-01
1200.00	0.3017E-01	3500.00	0.1812E-01
1225.00	0.2995E-01	3525.00	0.1804E-01
1250.00	0.2974E-01	3550.00	0.1796E-01
1275.00	0.2953E-01	3575.00	0.1788E-01
1300.00	0.2932E-01	3600.00	0.1781E-01
1325.00	0.2912E-01	3625.00	0.1773E-01
1350.00	0.2892E-01	3650.00	0.1766E-01
1375.00	0.2872E-01	3675.00	0.1759E-01
1400.00	0.2852E-01	3700.00	0.1751E-01
1425.00	0.2833E-01	3725.00	0.1744E-01

1450.00	0.2814E-01	3750.00	0.1737E-01
1475.00	0.2795E-01	3775.00	0.1730E-01
1500.00	0.2777E-01	3800.00	0.1723E-01
1525.00	0.2758E-01	3825.00	0.1716E-01
1550.00	0.2740E-01	3850.00	0.1709E-01
1575.00	0.2722E-01	3875.00	0.1702E-01
1600.00	0.2705E-01	3900.00	0.1695E-01
1625.00	0.2687E-01	3925.00	0.1688E-01
1650.00	0.2670E-01	3950.00	0.1681E-01
1675.00	0.2653E-01	3975.00	0.1675E-01
1700.00	0.2636E-01	4000.00	0.1668E-01
1725.00	0.2619E-01	4025.00	0.1662E-01
1750.00	0.2603E-01	4050.00	0.1655E-01
1775.00	0.2587E-01	4075.00	0.1649E-01
1800.00	0.2571E-01	4100.00	0.1642E-01
1825.00	0.2555E-01	4125.00	0.1636E-01
1850.00	0.2539E-01	4150.00	0.1630E-01
1875.00	0.2524E-01	4175.00	0.1623E-01
1900.00	0.2509E-01	4200.00	0.1617E-01
1925.00	0.2494E-01	4225.00	0.1611E-01
1950.00	0.2479E-01	4250.00	0.1605E-01
1975.00	0.2464E-01	4275.00	0.1599E-01
2000.00	0.2450E-01	4300.00	0.1593E-01
2025.00	0.2435E-01	4325.00	0.1587E-01
2050.00	0.2421E-01	4350.00	0.1581E-01
2075.00	0.2407E-01	4375.00	0.1575E-01
2100.00	0.2393E-01	4400.00	0.1569E-01
2125.00	0.2379E-01	4425.00	0.1563E-01
2150.00	0.2366E-01	4450.00	0.1558E-01
2175.00	0.2353E-01	4475.00	0.1552E-01
2200.00	0.2339E-01	4500.00	0.1546E-01
2225.00	0.2326E-01	4525.00	0.1541E-01
2250.00	0.2313E-01	4550.00	0.1535E-01
2275.00	0.2300E-01	4575.00	0.1530E-01
2300.00	0.2288E-01	4600.00	0.1524E-01
2325.00	0.2275E-01	4625.00	0.1519E-01
2350.00	0.2263E-01	4650.00	0.1513E-01
2375.00	0.2251E-01	4675.00	0.1508E-01
2400.00	0.2239E-01	4700.00	0.1503E-01
2425.00	0.2227E-01	4725.00	0.1497E-01
2450.00	0.2215E-01	4750.00	0.1492E-01
2475.00	0.2203E-01	4775.00	0.1487E-01
2500.00	0.2191E-01	4800.00	0.1482E-01
2525.00	0.2180E-01	4825.00	0.1476E-01
2550.00	0.2169E-01	4850.00	0.1471E-01
2575.00	0.2157E-01	4875.00	0.1466E-01
2600.00	0.2146E-01	4900.00	0.1461E-01
2625.00	0.2135E-01	4925.00	0.1456E-01
2650.00	0.2124E-01	4950.00	0.1451E-01
2675.00	0.2114E-01	4975.00	0.1446E-01
2700.00	0.2103E-01	5000.00	0.1441E-01

********** AERSCREEN MAXIMUM IMPACT SUMMARY **********

CALCULATION PROCEDURE	MAXIMUM 1-HOUR CONC (ug/m3)	SCALED 3-HOUR CONC (ug/m3)	SCALED 8-HOUR CONC (ug/m3)	SCALED 24-HOUR CONC (ug/m3)	SCALED ANNUAL CONC (ug/m3)
FLAT TERRAIN	0.4404E-01	0.4404E-01	0.3964E-01	0.2643E-01	0.4404E-02

DISTANCE FROM SOURCE 431.00 meters

IMPACT AT THE
AMBIENT BOUNDARY 0.4404E-01 0.4404E-01 0.3964E-01 0.2643E-01 0.4404E-02

DISTANCE FROM SOURCE 431.00 meters