

4.2 Air Quality

This section evaluates the potential for impacts on air quality resulting from implementation of the Perris Airport Logistics Center Project (Proposed Project). Information presented in this section related to construction and operation emissions is based on California Emissions Estimator Model (CalEEMod) and American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) modeling prepared by Harris & Associates and included in Appendix B to this Draft EIR.

In response to the Notice of Preparation, comments regarding air quality were received from the South Coast Air Quality Management District (AQMD), CARE CA, Department of Justice, and interested parties. Comments expressed concern related to air quality health risks to sensitive receptors.

4.2.1 Environmental Setting

The Project Site is located within the South Coast Air Basin, which includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. The following sections describe the environmental setting for the Proposed Project as it relates to air quality.

4.2.1.1 Regulatory Setting

This section describes the federal, state, and local regulatory framework adopted to address air quality.

Federal

Federal Clean Air Act (U.S. Code, Title 42, Section 7401 et seq.)

The Clean Air Act of 1970 is the comprehensive federal law that regulates air emissions from stationary and mobile sources. The Clean Air Act authorizes the U.S. Environmental Protection Agency (EPA) to establish National Ambient Air Quality Standards to protect public health and public welfare and to regulate emissions of hazardous air pollutants. The current national standards are listed in Table 4.2-1, National and California Ambient Air Quality Standards. The primary standards listed in Table 4.2-1 have been set at levels intended to protect public health. The EPA has classified air basins (or portions thereof) as being in “attainment,” “nonattainment,” or “unclassified” for each criteria air pollutant based on whether or not the national standards have been achieved. Nonattainment areas are air basins that do not meet one or more of the national standards and are subject to additional restrictions as required by the EPA. If an area is designated unclassified, it is because inadequate air quality data was available as a basis for a nonattainment or attainment designation.

The EPA classifies the South Coast Air Basin as in attainment for the national carbon monoxide (CO), nitrogen dioxide (NO₂), respirable particulate matter (PM₁₀), and sulfur dioxide (SO₂) standards. The South Coast Air Basin is classified as nonattainment for the national ozone (O₃) 8-hour standard and fine particulate matter (PM_{2.5}). (AQMD 2022). The Los Angeles County portion of the South Coast Air Basin is classified as nonattainment for the national lead standard while the remainder of the air basin is classified as being in attainment.

Table 4.2-2, South Coast Air Basin Attainment Status, lists the attainment status of the South Coast Air Basin for criteria pollutants.

Table 4.2-1. National and California Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards ¹	Federal Standards ²	
		Concentration ³	Primary ^{3, 4}	Secondary ^{3, 5}
Ozone (O ₃) ⁶	1-Hour	0.09 ppm (180 µg/m ³)	—	Same as Primary Standards
	8-Hour	0.070 ppm (137 µg/m ³)	0.070 ppm (137 µg/m ³)	
Respirable Particulate Matter (PM ₁₀) ⁷	24-Hour	50 µg/m ³	150 µg/m ³	Same as Primary Standards
	Annual Arithmetic Mean	20 µg/m ³	—	
Fine Particulate Matter (PM _{2.5}) ⁷	24-Hour	—	35 µg/m ³	Same as Primary Standards
	Annual Arithmetic Mean	12 µg/m ³	12 µg/m ³	15 µg/m ³
Carbon Monoxide (CO)	8-Hour	9 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)	None
	1-Hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	
Nitrogen Dioxide (NO ₂) ⁸	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)	0.053 ppm (100 µg/m ³)	Same as Primary Standard
	1-Hour	0.18 ppm (470 mg/m ³)	100 ppb (188 µg/m ³)	
Sulfur Dioxide (SO ₂) ⁹	Annual Arithmetic Mean	—	0.030 ppm (for certain areas)	—
	24-Hour	0.04 ppm (105 µg/m ³)	0.14 ppm (for certain areas)	—
	3-Hour	—	—	0.5 ppm (1300 µg/m ³)
	1-Hour	0.25 ppm (655 µg/m ³)	75 ppb (196 µg/m ³)	—
Lead ^{10, 11}	30-Day Average	1.5 µg/m ³	—	—
	Calendar Quarter	—	1.5 µg/m ³ (for certain areas)	Same as Primary Standard
	Rolling 3-Month Average ⁷	—	0.15 µg/m ³	
Visibility-Reducing Particles ¹²	8-Hour	See Footnote 12.	No Federal Standards	
Sulfates	24-Hour	25 µg/m ³	No Federal Standards	
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m ³)	No Federal Standards	
Vinyl Chloride ¹⁰	24-Hour	0.01 ppm (26 µg/m ³)	No Federal Standards	

Source: CARB 2016.

Notes: $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter; mg/m^3 = milligram per cubic meter; ppb = parts per billion; ppm = parts per million

- ¹ California standards for O_3 , CO, SO_2 (1-hour and 24-hour), NO_2 , PM_{10} , $\text{PM}_{2.5}$, and visibility-reducing particles are values that are not to be exceeded. The standards for sulfates, lead, hydrogen sulfide, and vinyl chloride standards are not to be equaled or exceeded. The California Ambient Air Quality Standards are listed in the Table of Standards in California Code of Regulations, Title 17, Section 70200.
- ² National standards (other than O_3 , PM, and those based on annual averages) are not to be exceeded more than once per year. The O_3 standard is attained when the fourth highest 8-hour concentration measured at each site in 1 year, averaged over 3 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 $150 \mu\text{g}/\text{m}^3$ is equal to or less than 1. For $\text{PM}_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard. Contact the US EPA for further clarification and current national policies.
- ³ Concentration expressed first in units in which it was promulgated. Equivalent units given in parenthesis are based on a reference temperature of 25 degrees Celsius ($^{\circ}\text{C}$) 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 National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
- ⁵ National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
- ⁶ On October 1, 2015, the national 8-hour O_3 primary and secondary standards were lowered from 0.075 to 0.070 ppm.
- ⁷ On December 14, 2012, the national annual $\text{PM}_{2.5}$ primary standard was lowered from $15 \mu\text{g}/\text{m}^3$ to $12.0 \mu\text{g}/\text{m}^3$. The existing national 24-hour $\text{PM}_{2.5}$ standards (primary and secondary) were retained at $35 \mu\text{g}/\text{m}^3$, as was the annual secondary standard of $15 \mu\text{g}/\text{m}^3$. The existing 24-hour PM_{10} standards (primary and secondary) of $150 \mu\text{g}/\text{m}^3$ were retained as well. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
- ⁸ 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 1-hour standard is in units of ppb. California standards are in units of ppm. To directly compare the national 1-hour standard 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.
- ⁹ 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 1 year after an area is designated for the 2010 standard, except that in areas designated nonattainment 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.
- ¹⁰ The California Air Resources Board (CARB) had 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.
- ¹¹ The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard ($1.5 \mu\text{g}/\text{m}^3$ as a quarterly average) remains in effect until 1 year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
- ¹² In 1989, CARB 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.

Table 4.2-2. South Coast Air Basin Attainment Status

Pollutant	California Standards	Federal Standards
Ozone (O ₃) (1-Hour)	Nonattainment	Nonattainment
Ozone (O ₃) (8-Hour)	Nonattainment	Nonattainment
Respirable Particulate Matter (PM ₁₀)	Nonattainment	Attainment
Fine Particulate Matter (PM _{2.5})	Nonattainment	Nonattainment
Carbon Monoxide (CO)	Attainment	Attainment/Unclassifiable ¹
Nitrogen Dioxide (NO ₂)	Attainment	Attainment/Unclassifiable
Lead	Attainment	Nonattainment (Los Angeles County)/Attainment/Unclassifiable
Sulfur Dioxide (SO ₂)	Attainment	Attainment

Source: South Coast AQMD 2016.

Note:

¹ Unclassified; indicates data is not sufficient for determining attainment or nonattainment.

The Clean Air Act requires states to develop a plan to attain and maintain the national standards in all areas of the country and a specific plan to attain the standards for each area designated nonattainment for a national standard. These plans, known as State Implementation Plans, are developed by state and local air quality management agencies and submitted to the EPA for approval. The State Implementation Plan includes strategies and control measures to attain the national standards by deadlines established by the Clean Air Act. The State Implementation Plan is periodically modified to reflect the latest emissions inventories, plans, and rules and regulations of air basins as reported by the agencies with jurisdiction over them.

State

California Ambient Air Quality Standards

The California Air Resources Board (CARB), a part of the California Environmental Protection Agency, is responsible for the coordination and administration of air pollution control programs in California. The Clean Air Act allows states to adopt ambient air quality standards and other regulations if they are at least as stringent as federal standards. California has adopted ambient air quality standards that are equal to or stricter than the federal standards for six criteria air pollutants. The California Ambient Air Quality Standards are listed in the Table of Standards in California Code of Regulations, Title 17, Section 70200, and provided in Table 4.2-1. Similar to the National Ambient Air Quality Standards, areas have been designated as attainment, non-attainment, or unclassified with respect to the California Ambient Air Quality Standards. As shown in Table 4.2-2, the South Coast Air Basin is in nonattainment with the California Ambient Air Quality Standards for ozone, PM₁₀, and PM_{2.5}. The South Coast Air Basin is designated as an attainment area for the state CO, nitrogen dioxide, sulfur dioxide, and lead.

Toxic Air Contaminant Regulations

California regulates toxic air contaminants primarily through the Tanner Air Toxics Act (Assembly Bill [AB] 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588, Hot Spots Act). The act sets forth a formal procedure for CARB to designate substances as toxic air contaminants. This includes research, public participation, and scientific peer review before CARB designates a substance as a toxic air contaminant. To date, CARB has designated nearly 200 compounds as toxic air contaminants. The majority of estimated health risks from toxic air contaminants can be attributed to a relatively small number of compounds, the most important being PM from diesel-fueled engines (i.e., diesel particulate matter).

Air Quality and Land Use Handbook: A Community Health Perspective

CARB developed the Air Quality and Land Use Handbook: A Community Health Perspective to provide guidance on land use compatibility with sources of toxic air contaminants (CARB 2005). These sources include freeways and high-traffic roads, commercial distribution centers, rail yards, refineries, dry cleaners, gasoline stations, and industrial facilities. The handbook is not a law or adopted policy but offers advisory recommendations for the siting of sensitive receptors near uses associated with toxic air contaminants. The handbook indicates that land use agencies must balance other considerations, including housing and transportation needs, economic development priorities, and other quality-of-life issues.

Title 24 Energy Efficiency Standards and California Green Building Standards

California Code of Regulations (CCR) Title 24 Part 6: The California Energy Code was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. The California Energy Code is updated on a regular basis.

The 2022 Energy Code encourages efficient electric heat pumps, establishes electric-ready requirements for new homes, expands solar photovoltaic and battery storage standards, and strengthens ventilation standards, among other requirements. The California Energy Commission anticipates that the 2022 Energy Code will provide \$1.5 billion in consumer benefits and reduce greenhouse gas emissions by 10 million metric tons.

The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. CCR, Title 24, Part 11: California Green Building Standards (CALGreen) Code is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on August 1, 2009, and is administered by the California Building Standards Commission.

The 2022 CALGreen Code mandatory measures for nonresidential uses that reduce air pollutant emissions and are applicable to the proposed Project include, but are not limited to, the following:

- Short-term bicycle parking. If the new project or an additional alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack (5.106.4.1.1).
- Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5% of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility (5.106.4.1.2).
- Designated parking for clean air vehicles. In new projects or additions to alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.5.2 (5.106.5.2).
- Electric vehicle (EV) charging stations. New construction shall facilitate the future installation of EV supply equipment. The compliance requires empty raceways for future conduit and documentation that the electrical system has adequate capacity for the future load. The number of spaces to be provided for is contained in Table 5.106.5.3.3 (5.106.5.3). Additionally, Table 5.106.5.4.1 specifies requirements for the installation of raceway conduit and panel power requirements for medium- and heavy-duty electric vehicle supply equipment for warehouses, grocery stores, and retail stores.
- Commissioning. For new buildings 10,000 square feet and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements (5.410.2).

The 2022 CALGreen Code has been adopted in Perris Municipal Code Section 16.08.050.

Regional

South Coast Air Quality Management District

The South Coast AQMD develops rules and regulations, establishes permitting requirements for stationary sources, inspects emission sources, and enforces such measures through educational programs or fines, when necessary. The South Coast AQMD is directly responsible for reducing emissions from stationary, mobile, and indirect sources. It has responded to this requirement by preparing a sequence of Air Quality Management Plans (AQMPs). The most recent of these AQMPs was adopted by the South Coast AQMD Governing Board on December 2, 2022.

The 2022 AQMP is focused on attaining the 2015 8-hour ozone standard for the South Coast Air Basin and Coachella Valley. The 2022 AQMP builds upon measures already in place from previous AQMPs. It also includes a variety of additional strategies such as regulation, accelerated deployment of available cleaner technologies (e.g., zero emission technologies, when cost-effective and feasible, and low NO_x technologies in other applications), best management practices, co-benefits from existing programs (e.g., climate and energy efficiency), incentives, and other Clean Air Act measures to achieve the 2015 8-hour ozone standard. The 2022 AQMP strategy includes the following:

- Wide adoption of zero emissions technologies anywhere available.

- Low NO_x technologies where zero emissions aren't feasible.
- Federal Action.
- Zero emissions technologies for residential and industrial sources such as water and space heaters in buildings and homes regionwide.
- Incentive funding in environmental justice areas.
- Prioritize benefits on the most disadvantaged communities.

During construction and operation, the Proposed Project must comply with applicable rules and regulations adopted by the South Coast AQMD. The following are the South Coast AQMD rules that the Proposed Project may be required to comply with, either directly, or indirectly.

- **Rule 402:** Prohibits a person from discharging from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
- **Rule 403:** Governs emissions of fugitive dust during construction and operation activities. Compliance with this rule is achieved through the application of standard Best Management Practices.
- **Rule 445:** Prohibits permanently installed wood burning devices into any new development.
- **Rule 1108:** Governs the sale, use, and manufacturing of asphalt and limits the volatile organic compound (VOC) content in asphalt used in the South Coast Air Basin. This rule regulates the VOC content of asphalt used during construction.
- **Rule 1113:** Serves to limit the VOC content of architectural coatings used on projects in the South Coast Air Basin. Any person who supplies, sells, offers for sale, or manufactures any architectural coating for use on projects in the South Coast Air Basin must comply with the current VOC standards set in this rule.
- **Rule 1303:** Governs the permitting of re-located or new major emission sources, requiring Best Available Control Measures and setting significance limits for PM₁₀ among other pollutants.
- **Rule 1401:** New Source Review of Toxic Air Contaminants, specifies limits for maximum individual cancer risk, cancer burden, and non-cancer acute and chronic hazard index from new permit units, relocations, or modifications to existing permit units, which emit toxic air contaminants.
- **Rule 2305:** The Warehouse Indirect Source Rule requires owners and operators associated with warehouses 100,000 square feet or larger to directly reduce NO_x and particulate matter emissions, or to otherwise facilitate emission and exposure reductions of these pollutants in nearby communities.

Air Quality Guidance Documents

South Coast AQMD CEQA Air Quality Handbook

Although the South Coast AQMD is responsible for regional air quality planning efforts, it does not have the authority to directly regulate air quality issues associated with plans and new development projects throughout the South Coast Air Basin. Instead, this is controlled through local jurisdictions in accordance with the California Environmental Quality Act (CEQA). In order to assist local jurisdictions with air quality compliance issues, the CEQA Air Quality Handbook prepared by the South Coast AQMD (1993) with the most current updates and found at <http://www.aqmd.gov/ceqa/hdbk.html>, was developed in accordance with the projections and programs of the AQMP. The purpose of the CEQA Air Quality Handbook is to assist lead agencies, as well as consultants, project proponents, and other interested parties in evaluating a proposed project's potential air quality impacts. Specifically, the CEQA Air Quality Handbook explains the procedures that the South Coast AQMD recommends be followed for the environmental review process required by CEQA. The CEQA Air Quality Handbook provides direction on how to evaluate potential air quality impacts, how to determine whether these impacts are significant, and how to mitigate these impacts. The South Coast AQMD is in the process of developing an updated "Air Quality Analysis Guidance Handbook" to replace the CEQA Air Quality Handbook. The CEQA Air Quality Handbook is still available but not online. In addition, there are sections of the CEQA Air Quality Handbook that are obsolete. In order to assist the CEQA practitioner in conducting an air quality analysis while the new CEQA Air Quality Handbook is being prepared, supplemental information regarding significance thresholds and analysis, emissions factors, cumulative impacts emissions analysis, and other useful subjects, are available at the South Coast AQMD website (South Coast AQMD 2024a). The CEQA Air Quality Handbook and updated supplemental information is used in this analysis.

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino and Imperial Counties and addresses regional issues relating to transportation, the economy, community development and the environment. SCAG is the Federally designated metropolitan planning organization for the majority of the southern California region and is the largest metropolitan planning organization in the nation. With respect to air quality planning, SCAG has prepared the Regional Transportation Plan and Regional Transportation Improvement Plan, which addresses regional development and growth forecasts. These plans form the basis for the land use and transportation components of the AQMP, which are utilized in the preparation of air quality forecasts and in the consistency, analysis included in the AQMP. The Regional Transportation Plan, Regional Transportation Improvement Plan, and AQMP are based on projections originating within the City and County General Plans.

On September 3, 2020, SCAG’s Regional Council unanimously voted to approve and fully adopt Connect SoCal – the 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments, and the addendum to the Connect SoCal Program Environmental Impact Report. Connect SoCal is a long-range visioning plan that builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. Connect SoCal outlines more than \$638 billion in transportation system investments through 2045. It was prepared through a collaborative, continuous, and comprehensive process with input from local governments, county transportation commissions, tribal governments, non-profit organizations, businesses and local stakeholders within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura.

Most recently, in April 2024, SCAG approved Connect SoCal 2024. Connect SoCal 2024 outlines a vision for a more resilient and equitable future, with investment, policies and strategies for achieving the region’s shared goals through 2050. Goals of the plan include more efficient development patterns, reduced congestion, expanded multi-modal travel options, and reduced greenhouse gas emission from passenger vehicles. Priority Development Areas are a key focus of the plan to increase development in locations where people can access alternative modes of transportation or make short trips for day-to-day tasks.

Local

City of Perris General Plan

Local jurisdictions, such as the City of Perris, have the authority and responsibility to reduce air pollution through its police power and decision-making authority. Specifically, the City is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. The City is also responsible for the implementation of transportation control measures as outlined in the 2022 AQMP. Examples of such measures include bus turnouts, energy-efficient streetlights, and synchronized traffic signals. In accordance with CEQA requirements and the CEQA review process, the City assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation.

The City relies on the expertise of the South Coast AQMD and utilizes the South Coast AQMD CEQA Air Quality Handbook and supplemental information as the guidance document for the environmental review of plans and development proposals within its jurisdiction.

The Healthy Community Element as well as the Conservation Element of the City of Perris General Plan summarize air quality issues in the South Coast Air Basin, air quality-related plans and programs administered by federal, state, and special purpose agencies, and establishes goals and policies to improve air quality.

Applicable goals and policies from the Healthy Community Element include:

- Goal HC-6** Healthy Environment – Support efforts of local businesses and regional agencies to improve the health of our region’s environment.
- **Policy HC-6.1:** Support regional efforts to improve air quality through energy efficient technology, use of alternative fuels, and land use and transportation planning.
 - **Policy HC-6.3:** Promote measures that will be effective in reducing emissions during construction activities.
 - Perris will ensure that construction activities follow existing South Coast Air Quality Management District (SCAQMD) rules and regulations.
 - All construction equipment for public and private projects will also comply with California Air Resources Board’s vehicle standards. For projects that may exceed daily construction emissions established by the SCAQMD, Best Available Control Measures will be incorporated to reduce construction emissions to below daily emission standards established by the SCAQMD.
 - Project proponents will be required to prepare and implement a Construction Management Plan which will include Best Available Control Measures among others. Appropriate control measures will be determined on a project-by-project basis and should be specific to the pollutant for which the daily threshold is exceeded.

Applicable goals and policies from the Conservation Element include:

- Goal X:** Encourage improved energy performance standards above and beyond the California Title 24 requirements.
- **Policy X.B:** Encourage the use of trees within project design to lessen energy needs, reduce the urban heat island effect, and improve air quality throughout the region.

Perris Good Neighbor Guidelines

The City of Perris Good Neighbor Guidelines for Siting New and/or Modified Industrial Facilities were adopted in September 2022. The purpose of the Perris Good Neighbor Guidelines is to protect residential areas in the City while allowing for the planned development of new or modified industrial facilities. The Perris Good Neighbor Guidelines apply to all new warehouse, logistics, and distribution facilities with applications submitted after September 2022. The Perris Good Neighbor Guidelines contain the following policies related to air quality that are applicable to the Project:

- Goal 1** Protect the neighborhood characteristics of the urban, rural, and suburban communities.

- Policy 1.1** Any industrial project over 400,000 square feet in size or requiring the preparation of an Environmental Impact Report (EIR) shall be designed to meet the requirements of LEED Silver Certification whether or not certification is pursued. Documentation shall be provided to the City demonstrating compliance.
- Policy 1.3** When possible, locate driveways, loading docks, and internal circulation routes away from sensitive receptors.
- Policy 1.12** Warehouse/ distribution facilities shall be designed to provide adequate on-site parking for commercial trucks and passenger vehicles and on site queuing for trucks away from sensitive receptors. Commercial trucks shall not be parked in the public right of way or nearby residential areas, in accordance with the Perris Municipal Code and Specific Plans.
- Policy 1.16** Signs shall be installed at all truck exit driveways directing truck drivers to the truck route as indicated in the City approved Truck Routing Plan and State Highway System to minimize potential impacts on sensitive receptors.
- Policy 1.17** Signs shall be installed in public view with contact information of facility operator and SCAQMD for complaints related to excessive dust, fumes, or odors, and truck and parking complaints. Any complaints made to the facility operator shall be answered within 72 hours of receipt.
- Policy 1.19** Signs and drive aisle pavement markings shall clearly identify the onsite circulation pattern to minimize unnecessary on-site vehicular travel.
- Goal 2** Minimize exposure of diesel emissions to neighbors that are situated in close proximity to the warehouse/distribution center.
- Policy 2.1** Minimize the air quality impacts of trucks on sensitive receptors by:
- a) Restricting diesel engine and construction equipment idling to 5 minutes or less (SCAQMD Rule 2485). A driver of a vehicle shall turn off the engine upon stopping at a destination.
 - b) Designing facilities with adequate on-site queuing for trucks and away from sensitive receptors and preventing queuing of trucks on surrounding public streets.
 - c) Providing ingress and egress for trucks away from sensitive receptors.
 - d) For buildings with 50 or more dock high doors, a site plan is required identifying a planned location for future electric truck charging stations and installation of raceway for conduit to that location. A ratio of one charging station shall be required for every 50 dock high doors.
 - e) On-site equipment, such as forklifts, shall be electric with the necessary electrical charging stations provided or be powered by alternative technology.
 - f) Passenger vehicles parking should be separated from enclosed truck parking/truck court, and have separate primary access.
 - g) At least 10% of all passenger vehicle parking spaces shall be electric vehicle (EV) ready. At least 5% of all passenger vehicle parking spaces shall be

equipped with working Level 2 Quick charge EV charging stations installed and operational, prior to issuance of a certificate of occupancy. Signage shall be installed indicating EV charging stations and that spaces are reserved for clean air/EV vehicles.

- h) Encouraging replacement of diesel fleets with new model vehicles.
- i) Preventing the queuing of trucks on streets or elsewhere outside the warehouse facility or near sensitive receptor.
- j) Promoting the installation of on-site electric hook-ups to eliminate idling of main and auxiliary engines during loading and unloading of cargo and when trucks are not in use – especially where transport refrigeration units (TRUs) are proposed to be used.

- Policy 2.2** No operation shall be permitted which emits odorous gases or other odorous matter in such quantities as to be dangerous, injurious, noxious, or otherwise objectionable to a level that is detectable with or without the aid of instruments at or beyond the lot line of the property containing said operation or activity.
- Policy 2.3** Avoid locating exits and entries near sensitive receptors.
- Policy 2.5** Warehouses greater than 100,000 square feet are required to directly reduce nitrogen and diesel particulate matter emissions (SCAQMD Rule 2305).
- Policy 2.6** On site motorized operational equipment shall be ZE (Zero Emissions).
- Policy 2.7** Buildings over 400,000 square feet shall install solar panels so 100% of the power is supplied to the office area of the facility, unless it is restricted due to the March Air Force Base Accident Potential Zone.
- Policy 2.8** Truck operators with TRUs shall be required to utilize electric plug-in units when at loading docks.
- Policy 2.9** Pursuant to CARB’s Truck and Bus Regulation, facility operators shall maintain records of their facility owned and operated fleet equipment and ensure that all diesel fueled Medium-Heavy Duty Trucks (MHDT) and Heavy-Heavy Duty (HHD) trucks with a gross vehicle weight rating greater than 19,500 pounds use year CARB compliant 2010 or newer engines. Records should be made available to the City of Perris.
- Policy 2.10** Facility operators shall coordinate with CARB and SCAQMD to obtain the latest information about regional air quality concentrations, health risks, and trucking regulations.
- Policy 2.11** Equipment operator of a TRU (Transportation Refrigeration Unit) shall not cause a TRU to operate while stationary unless the vehicle is lawfully parked and not within 500 feet of a school, unless the operator is actively engaged in the process of loading or unloading cargo or is waiting in a queue to load or unload for a period not to exceed 2 hours.

- Policy 2.12** Require low energy use features, low water use features, all-electric vehicles (EV) parking spaces and charging facility, carpool/vanpool parking spaces, and short- and long-term bicycle parking facilities (Title 24 of the California Code of Regulations – CALGreen).
- Policy 2.13** Post signs requiring to turn off truck engines when not in use.
- Goal 3** Eliminate diesel trucks from unnecessary traversing through residential neighborhoods.
- Policy 3.1** The facility operator shall abide by the truck routing plans, consistent with the City of Perris Truck Route Plan.
- Policy 3.3** Truck traffic shall be routed to impact the least number of sensitive receptors.
- Policy 3.5** Check in gates and/or guard booths are required to be positioned with a minimum of 150 feet inside the property line for on-site truck queuing. An additional 75 feet of on-site queuing shall be added for every 20 loading docks beyond 40 up to 300 feet. Multiple lanes (minimum lane width 12 feet) are permitted to achieve the required queuing. The general queuing and spillover of trucks onto the surrounding public streets are prohibited. Commercial trucks and/or trailers shall not be parked on the public right of way or adjacent to sensitive receptors.
- Goal 4** Provide Buffers between Warehouses and Sensitive Receptors
- Policy 4.1** A separation of at least 300 feet shall be provided, as measured from the dock doors to the nearest property line of the sensitive receptor.
- Policy 4.10** Require on-site signage for directional guidance to trucks entering and exiting the facility to minimize potential impacts on sensitive receptors.
- Goal 5** Establish an Education Program to Inform Truckers of Health Effects of Diesel Particulate and Conduct Community Outreach to Address Residents' Concerns
- Policy 5.1** Provide adequate notification to all owners of real property on the latest records of the County Assessor within 500 feet of the real property. or at least 25 property owners, whichever is greater, for all required public notices pertaining to a warehouse project's entitlement.
- Policy 5.2** Facility operators shall train their managers and employees on efficient scheduling and load management to eliminate unnecessary queuing and idling of trucks.
- Policy 5.3** Facility operators shall require their drivers to park and perform any maintenance of trucks in designated on site areas and not within the surrounding community or on public streets.
- Policy 5.4** Facility operators for sites that exceed 250 employees shall establish a rideshare program, in accordance with SAQMD Rule 2202, with the intent of discouraging

single-occupancy vehicle trips and promote alternate modes of transportation, such as carpooling and transit where feasible.

- Policy 5.5** Provide informational flyers and pamphlets for truck drivers about the health effects of diesel particulates and importance of being a good neighbor.
- Policy 5.6** Encourage facility owners/management to have site visits with neighbors and the community to view measures taken to reduce/and or eliminate diesel particulate emissions.
- Policy 5.8** Provide facility owners/management with information from CARB and SCAQMD and encourage the utilization of resources provided by those agencies.
- Goal 6** Implement Construction Practice Requirements in Accordance with State Requirements to Limit Emissions and Noise Impacts from Building Demolition, Renovation, and New Construction
- Policy 6.1** In addition to regular construction inspections conducted by City Departments, the applicant shall provide monthly reports to the City demonstrating compliance with all the construction related policies.
- Policy 6.2** All diesel fueled off-road construction equipment greater than 50 horsepower shall be equipped with CARB Tier 4 Compliant engines. If Tier 4 equipment is not available within 50 miles of the project site, Tier 3 or cleaner off road construction equipment may be utilized.
- Policy 6.3** Construction contractor shall utilize construction equipment with properly operating and maintained mufflers, consistent with manufacturer's standards.
- Policy 6.4** Construction contractors shall locate or park all stationary construction equipment away from sensitive receptors nearest the project site, to the extent practicable.
- Policy 6.5** The surrounding streets shall be swept on a regular basis to remove any construction related debris and dirt.
- Policy 6.6** Appropriate dust control measures that meet the SCAQMD Rule 403 standards shall be implemented for grading and construction activity.
- Policy 6.7** Construction equipment maintenance records and data sheets, as well as any other records necessary to verify compliance with CARB standards shall be kept on site and furnished to the City of Perris upon request.
- Policy 6.8** Prepare a construction traffic control plan prior to grading, detailing the locations of equipment staging areas material stockpiles, proposed road closures, and hours of construction operations to minimize impacts to sensitive receptors.
- Policy 6.10** The maximum daily disturbance area (actively graded area) shall be determined by the Air Quality Study.

- Policy 6.11** Use of the most readily available technology (CARB Tier 3, Tier 4 Interim, and Tier 4 Compliant equipment).
- Policy 6.12** Designate an area of the construction site where electric-powered construction vehicles and equipment can charge if the utility provider can feasibly provide temporary power for this purpose.
- Policy 6.13** During construction, signs are required to be in public view with contact information for a designated representative of the building occupant and an SCAQMD representative who is designated to receive complaints about excessive dust, fumes, or odors on this site.
- Goal 7** Ensure Compliance with the California Environmental Quality Act (CEQA) and State Environmental Agencies
- Policy 7.1** In compliance with CEQA, conduct SCAQMD California Emissions Estimator Model (CalEEMod) and Emission Factors (EMFAC) computer models to identify the significance of air quality impacts on sensitive receptors.
- Policy 7.2** Require an air quality analysis to ensure air quality protection, in accordance with the Air Quality Management District (AQMD) guidelines, for both project specific and cumulative impact analysis.
- Policy 7.3** Require Health Risk Assessments for industrial uses within 1,000 feet of sensitive receptors in accordance with AQMD guidelines.
- Policy 7.5** Require Transportation Demand Management Measures for industrial uses with over 100 employees to reduce work related vehicle trips.
- Policy 7.6** Require signage about CARB regulations.
- Policy 7.7** All building roofs shall be solar-ready.
- Policy 7.8** Require the use of low Volatile organic compounds (VOC) paints and coatings (SCAQMD Rule 1113).

4.2.1.2 Existing Conditions

Climate

The Project Site is located within the City of Perris in the portion of Riverside County that lies within the South Coast Air Basin. The South Coast Air Basin is a 6,600-square-mile coastal plain bounded by the Pacific Ocean to the southwest and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The South Coast Air Basin includes the non-desert portions of Los Angeles, Riverside, and San Bernardino counties, and all of Orange County. The ambient concentrations of air pollutants are determined by the number of emissions released by sources and the atmosphere's ability to transport and dilute such emissions. Natural factors that affect transport and dilution include terrain, wind, atmospheric stability, and sunlight. Therefore,

existing air quality conditions in the area are determined by such natural factors as topography, meteorology, and climate, in addition to the amount number of emissions released by existing air pollutant sources.

Atmospheric conditions such as wind speed, wind direction, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants. The topography and climate of southern California combine to make the South Coast Air Basin an area of high air pollution potential. The South Coast Air Basin is a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean to the west and high mountains around the rest of the perimeter. The general region lies in the semi-permanent high-pressure zone of the eastern Pacific, resulting in a mild climate tempered by cool sea breezes with light average wind speeds. The usually mild climatological pattern is disrupted occasionally by periods of extremely hot weather, winter storms, or Santa Ana winds. During the summer months, a warm air mass frequently descends over the cool, moist marine layer produced by the interaction between the ocean's surface and the lowest layer of the atmosphere. The warm upper layer forms a cap over the cool marine layer and inhibits the pollutants in the marine layer from dispersing upward. In addition, light winds during the summer further limit ventilation. Furthermore, sunlight triggers the photochemical reactions that produce ozone.

Temperature and precipitation levels in the City vary throughout the year.-In general, August is typically the warmest month and December is typically the coolest month. Rainfall around the Project Site varies considerably in both time and space. Almost all the annual rainfall comes from the fringes of mid-latitude storms from late November to early April, with summers being almost completely dry.

Air Pollutants and Effects

Air quality laws and regulations have historically divided air pollutants into two broad categories: criteria air pollutants and non-criteria pollutants, or toxic air contaminants. The purpose of this section is to evaluate the potential criteria air pollutant impacts of the Proposed Project. Criteria air pollutants are a group of common air pollutants regulated by federal and state governments through ambient air quality standards based on criteria regarding the health and environmental effects of pollution. The criteria air pollutants pertinent to the analysis in this EIR are carbon monoxide (CO), nitrogen oxides (NO_x), ozone (O₃), respirable particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), and sulfur dioxide. The following describes the health effects of these criteria air pollutants.

Carbon Monoxide

CO is a colorless, odorless, poisonous gas produced by combustion processes, primarily mobile sources. When CO gets into the body, it combines with chemicals in the blood and prevents blood

from providing oxygen to cells, tissues, and organs. Because the body requires oxygen for energy, high-level exposure to CO can cause serious health effects, including death (EPA 2024a).

Nitrogen Oxides

NO_x is a general term pertaining to compounds including nitric oxide (NO), nitrogen dioxide (NO₂), and other nitrogen oxides. NO_x is produced from burning fuels, including gasoline, diesel, and coal. NO_x reacts with volatile organic compounds (VOC) to form ground-level ozone (smog). NO_x is linked to a number of adverse respiratory system effects (EPA 2023b).

Ozone

Ground-level ozone is not emitted directly into the air but is formed by chemical reactions of “precursor” pollutants (NO_x and VOC) in the presence of sunlight. Major emissions sources include NO_x and VOC emissions from industrial facilities and electric utilities, motor vehicle exhaust, gasoline vapors, and chemical solvents. Ozone can trigger a variety of health problems, particularly for sensitive receptors, including children, older adults, and people of all ages who have lung diseases, such as asthma (EPA 2024a).

Particulate Matter

Particulate matter includes dust, metals, organic compounds, and other tiny particles of solid materials that are released into and move around in the air. Particulates are produced by many sources, including the burning of diesel fuel by trucks and buses, industrial processes, and fires. Particulate matter is measured in microns, which are 1 millionth of 1 meter in length (or 1 thousandth of 1 millimeter). PM₁₀ is small particulate matter measuring no more than 10 microns in diameter, while PM_{2.5} is fine particulate matter measuring no more than 2.5 microns in diameter. Both PM_{2.5} and PM₁₀ can be inhaled and deposited throughout the airways. Locations of particle deposition in the lung depend on particle size. PM_{2.5} is more likely to travel into and deposit on the surface of the deeper parts of the lung, while PM₁₀ is more likely to deposit on the surfaces of the larger airways of the upper region of the lung. Inhalation of particulate matter can cause nose and throat irritation and heart and lung problems (CARB 2024b).

Sulfur Dioxide

Sulfur dioxide is formed primarily by the combustion of sulfur-containing fossil fuels, especially at power plants and industrial facilities. Sulfur dioxide is linked to a number of adverse effects on the respiratory system (EPA 2024c).

Existing Ambient Air Quality

The air quality at any site is dependent on the regional air quality and local pollutant sources. Regional air quality is determined by the release of pollutants throughout the South Coast Air Basin. Estimates of the existing emissions in the South Coast Air Basin provided in the Final 2022 AQMP

prepared by the South Coast AQMD (December 2022) indicate that collectively, mobile sources account for 46 percent of the VOC, 85 percent of the NO_x emissions, 89 percent of the CO emissions, and 29 percent of directly emitted PM_{2.5}, with another 18 percent of PM_{2.5} from road dust (South Coast AQMD 2022).

The South Coast AQMD has divided the South Coast Air Basin into 38 air monitoring areas with a designated ambient air monitoring station representative of each area. The Project Site is located within the Perris Valley air monitoring area (Area 24), which is located in Riverside County and covers from the San Bernardino and Riverside County line on the north, Paloma Valley on the south, Perris on the west, and the San Jacinto Valley on the east. Prior to 2022, ambient air emissions of ozone within Area 24 were monitored at the Perris Valley Monitoring Station which was located approximately 1.6 miles northwest of the Project Site at 237 N. D Street, Perris. The Perris Valley Monitoring Station also measured ambient concentrations of PM₁₀ prior to 2021. Ambient air quality concentrations are no longer monitored within Area 24.

As not all monitoring stations monitor all pollutants, representative data can also be obtained from the Lake Elsinore-W Flint Street Monitoring Station (Lake Elsinore Station) located approximately 8.6 miles southwest of the Project Site at 506 W Flint Street, Lake Elsinore for those pollutants which were not measured at the Perris Valley Station. However, it should be noted that due to the air monitoring stations' distances from the Project Site, recorded air pollution levels at the air monitoring station reflect with varying degrees of accuracy, local air quality conditions at the Project Site. Table 4.2-3, Air Quality Monitoring Summary, summarizes the monitored pollutant levels from the Perris Valley and Lake Elsinore Stations from 2021 through 2023, which is the most recent 3-year period available. The data shows that during the past few years, the Perris Valley Station has exceeded the ozone and PM₁₀ standards.

Table 4.2-3. Air Quality Monitoring Summary

Pollutant	Standard	Monitoring Station	2021	2022	2023
Ozone (O₃)					
Maximum 1-hour concentration (ppm)		Perris Valley 24	0.117	0.121	0.120
Number of days exceeded	State: > 0.9 ppm		25	17	10
Maximum 8-hour concentration (ppm)			0.094	0.091	0.103
Number of days exceeded	State: > 0.07 ppm		60	37	35
	Federal: > 0.07 ppm		60	37	35
Respirable Particulate Matter (PM_{2.5})					
Maximum 24-hour concentration (µg/m ³)		Lake Elsinore 25	*	*	*
Number of days exceeded	Federal: > 35 µg/m ³		*	*	*
Annual arithmetic average concentration (µg/m ³)			*	*	*
Exceeded for the year	State: > 12 µg/m ³		*	*	*
	Federal: > 15 µg/m ³		*	*	*
Fine Particulate Matter (PM₁₀)					
Maximum 24-Hour Concentration		Perris Valley 24	89.0	91.0	186
Number of days exceeded	Federal: >150 µg/m ³		0	0	1
	State: > 50 µg/m ³		4	1	5
Annual arithmetic average concentration (µg/m ³)			21.4	19.8	20.8
Nitrogen Dioxide (NO₂)					
Maximum 1-hour concentration (ppm)		Lake Elsinore 25	43.7	37.2	41.7
Carbon Monoxide (CO)					
Maximum 8-Hour Concentration		Lake Elsinore 25	0.9	0.9	1.3
Number of days exceeded	State: > 9 ppm		0	0	0
	Federal: > 9 ppm		0	0	0

Source: AQMD 2024

Notes: ppm = parts per million * = insufficient data available to determine value.

4.2.2 Thresholds of Significance

According to Appendix G of the Guidelines for Implementation of the California Environmental Quality Act (CEQA Guidelines), the Proposed Project would have a significant impact on air quality if it would:

- **Threshold AQ-1:** Conflict with or obstruct implementation of the applicable air quality plan.
- **Threshold AQ-2:** 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).
- **Threshold AQ-3:** Expose sensitive receptors to substantial pollutant concentrations.
- **Threshold AQ-4:** Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The South Coast AQMD 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 South Coast Air Basin. Table 4.2-4, Maximum Daily Regional Emissions Thresholds of Significance, provides a summary of the South Coast AQMD Regional Emissions Thresholds for both construction and operational activities. The South Coast AQMD's CEQA Air Quality Significance Thresholds indicate that any projects in the South Coast Air Basin with daily emissions that exceed any of the indicated thresholds should be considered as having an individually and cumulatively significant air quality impact (South Coast AQMD 2023).

Table 4.2-4. Maximum Daily Regional Emissions Thresholds of Significance

Pollutant	Pounds per Day	
	Construction Regional Thresholds	Operational Regional Thresholds
NO _x	100	55
VOC	75	55
PM ₁₀	150	150
PM _{2.5}	55	55
SO _x	150	150
CO	550	550

Source: South Coast AQMD March 2023.

Notes: CO = carbon monoxide; NO_x = oxides of nitrogen; Pb = lead; PM₁₀ = particulate matter less than 10 microns in diameter; PM_{2.5} = particulate matter less than 2.5 microns in diameter; SO_x = sulfur oxides; VOC = volatile organic compounds

The South Coast AQMD's screening look-up tables, or Localized Significance Thresholds (LSTs) are utilized in determining the significance of the Proposed Project's localized air quality impacts, and to determine if further detailed analysis is required. As described in greater detail below in Methodology, the thresholds presented in Table 4.2-5, Maximum Daily Localized Emissions

Thresholds of Significance, are the applicable threshold values for the Proposed Project’s disturbed acreage (approximately 75 acres), and a receptor distance of 50 meters.

Table 4.2-5. Maximum Daily Localized Emissions Thresholds of Significance

Pollutant	Pounds per Day	
	Construction	Operational
NO _x	302	302
CO	2,178	2,178
PM ₁₀	40	10
PM _{2.5}	10	3

Source: South Coast AQMD 2009.

Notes: CO = carbon monoxide; NO_x = oxides of nitrogen; PM₁₀ = particulate matter less than 10 microns in diameter; PM_{2.5} = particulate matter less than 2.5 microns in diameter

Regarding operational impacts to sensitive receptors, the Proposed Project would result in a significant impact if diesel particulate matter exposure would result in an increased cancer risk greater than 10 in 1 million, or an increased chronic non-cancer hazard index of more than 1.

With respect to “cumulative considerable” increases in emissions, the South Coast AQMD has published a report on how to address cumulative impacts from air pollution: White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution. In this report the South Coast AQMD clearly states (Page D-3):

“...the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or Environmental Impact Report (EIR). The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for TAC emissions. The project specific (project increment) significance threshold is HI > 1.0 while the cumulative (facility-wide) is HI > 3.0. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts.

Projects that exceed the project-specific significance thresholds are considered by the South Coast AQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.”

Therefore, this analysis assumes that individual projects that do not generate operational or construction emissions that exceed the South Coast AQMD’s recommended daily thresholds of significance for project-specific impacts would also not cause a cumulatively considerable increase in emissions for those pollutants for which the South Coast Air Basin is in nonattainment, and, therefore, would not be considered to have a significant, adverse air quality

impact. Alternatively, individual project-related construction and operational emissions that exceed South Coast AQMD thresholds of significance for project-specific impacts would be considered cumulatively considerable.

Methodology

Construction and operation emissions were modeled for the Proposed Project using CalEEMod Version 2022.1.1.24. Construction is conservatively assumed to require approximately two years based upon the CalEEMod default schedule for projects of similar size and scope and a review of other similar industrial projects in the surrounding area (City of Perris 2023). Default construction equipment fleet and vehicle trips for workers and haul trips are assumed. A total of 186,500 cubic yards of soil would be required for import to both sites. Implementation of dust control practices is assumed consistent with South Coast AQMD Rule 403, including watering and limiting vehicle speeds. Consistent with the traffic analysis, an operational year of 2025 is assumed. Total daily vehicle traffic and fleet mix was obtained from the Traffic Impact Analysis for the Proposed Project (Appendix J). The CalEEMod default vehicle mix was revised based on the truck trip percentages calculated for each Proposed Project component in the Traffic Impact Analysis. Trucks are assumed to be heavy-duty trucks and truck types (light-, medium-, or heavy-heavy duty) were determined based on number of axles using guidance from the California Air Pollution Control Officers Association (2013). Consistent with South Coast AQMD recommendations, truck trips distance for Buildings 1 and 2 on Site 1 was assumed to be 40 miles. The CalEEMod input for Work-Other (W-O) trips was revised to represent truck trips, the percent of total trips attributable to Work-Other was revised based on the daily truck trip percentages from the Traffic Analysis and VMT Analysis. Passenger vehicle trip length was modified so that total vehicle miles traveled (VMT) for Buildings 1 and 2 was consistent with the VMT calculated for these buildings in the Traffic Analysis and VMT Analysis. As described in Section 4.13, Transportation, the Site 2 development would be a locally serving use that was screened out of VMT analysis. As such, Project-specific VMT was not calculated for Site 2 and the CalEEMod average default trip lengths of approximately 13 miles is assumed for Site 2, including truck trip distance. As a locally serving use, a 40-mile trip length would not be appropriate for Site 2 truck trips. The 40-mile trip length is intended to represent average trip lengths from distribution facilities to an end facility to deliver goods, such as a port. The purpose of the Site 2 truck and trailer storage facility is to provide a location for trucks in between distribution facilities and end destinations. Overflow storage would also be available for Buildings 1 and 2, which would reduce the need for trucks to be on the road. As such, new VMT attributable to Site 2 would be limited to a truck's diversion from its route to Site 2. As the Project Site is located less than 2 miles from any Interstate 215 interchange, the default trip length is considered conservative. Model default calculations for energy use, consumer product use, and landscaping are assumed.

Regarding localized impacts to sensitive receptors from criteria pollutants, the local air quality emissions from construction and operation were analyzed using the South Coast AQMD's Mass Rate Localized Significant Threshold Look-up Tables and the methodology described in Localized Significance Threshold (LST) Methodology prepared by the South Coast AQMD (revised July 2008). The Look-up Tables were developed by the South Coast AQMD in order to readily determine if the daily emissions of CO, NO_x, PM₁₀, and PM_{2.5} from a proposed project could result in a significant impact to the local air quality. The emission thresholds were obtained based on the Perris Valley Source Receptor Area 24. A daily disturbance value of five acres per day is assumed for construction based on South Coast AQMD guidance for determining daily disturbance area based on CalEEMod-estimated fleet (South Coast AQMD 2024b). Operation of the Proposed Project is analyzed based on the Perris Valley Area 24 and thresholds of significance for a 5-acre site, the largest project size contained in the LST Lookup Tables. Consistent with South Coast AQMD guidance, the LST analysis includes only on-site emissions during construction and operation (South Coast AQMD 2008). On-site mobile emissions are assumed to be 16 percent of total emissions. It is conservatively assumed that each trip would include a total of 2 miles of travel on either Site 1 or 2. Average trip distance for the project is 12.6 miles (34,534 daily VMT for 2,730 average daily trips). Therefore, 2 miles represents approximately 16 percent of total emissions. Five percent of emissions is conservatively assumed. The nearest sensitive receptor area is the residential zone approximately 160 feet northwest of the Project Site. This zone includes the Hunt Club Apartments, which is setback from the roadway and located approximately 370 feet at the closest point from the construction area. However, a receptor distance of 50 meters (approximately 164 feet) from construction to the edge of the residential zone is conservatively assumed for purposes of this analysis.

The assessment of health risk impacts from diesel particulate matter from the Proposed Project operation is modeled using the AERMOD Model (AERMOD View Version 12.0.0), which is the air dispersion model accepted by the South Coast AQMD for performing health risk analyses. AERMOD predicts pollutant concentrations from point, area, volume, line, and flare sources with variable emissions in terrain from flat to complex with the inclusion of building downwash effects from buildings on pollutant dispersion. It captures the essential atmospheric physical processes and provides reasonable estimates over a wide range of meteorological conditions and modeling scenarios. Modeling incorporated the modeling assumptions outlined in the South Coast AQMD Modeling Guidance for AERMOD (South Coast AQMD 2024c), including urban dispersion coefficient, elevated terrain, 1-year averaging time, and receptor height of 0 meters.

The diesel particulate matter emission factors for the various vehicle types were derived from PM₁₀ emissions factors from the CARB EMFAC2021 mobile source emission model. The emissions factors were derived for the South Coast area of Riverside County. Emissions factors were estimated to establish the emissions generated while the vehicles travel off-site, along travel links from the Proposed Project driveways to loading docks at Site 1, the travel lane through the Project

Site, while idling at the loading dock during loading or unloading materials at Site 1, and while idling and maneuvering to park at Site 2. Truck loading areas at Site 1 and truck parking areas on Site 2 are modeled as area sources. Roadways are modeled as line sources made up of multiple adjacent volume sources. All vehicles were assumed to travel on-site at a speed of 5 miles per hour. Off-site, the speeds along the roads were anticipated to average 25 miles per hour. Delivery vehicles were assumed to idle for a maximum of 15 minutes per vehicle per day, consistent with South Coast AQMD recommendations. The South Coast AQMD recommendation is conservative compared to the CARB Air Toxic Control Measure (ATCM), which regulates truck idling time to five minutes or less and is intended to account for idling that may occur at facility entrances and exits, during truck maneuvering, and at the loading bay or truck parking areas. The emissions factors used in this assessment are detailed in Appendix B, including truck mix and trip generation assumptions, and utilized equations. Assumed truck route, truck mix, and trip generation were obtained from the Traffic Impact Analysis prepared for the Proposed Project (Appendix J). Emissions factors conservatively assume an operational year of 2025, although Proposed Project emissions would decrease over time due to increasing emissions standards.

Annual concentrations of diesel particulate matter, as PM_{10} , at receptors within 1,000 meters of the Project center point are calculated using AERMOD, including seven discrete receptor locations at the existing sensitive and industrial receptors closest to the construction area. The receptor grid uses a spacing of 50 meters. Residential discrete receptors include the Hunt Club Apartments located directly northwest of the Project Site (1355 S Perris Blvd), and the Perris Park Apartments located west of the Hunt Club Apartments (1450 S Perris Blvd). A discrete receptor is also located at the nearest school, Perris Lake High School (418 W Ellis Avenue), to represent potential student exposure. Worker exposure is calculated at four locations, one in each direction from the Project Site, including Iglesia de Dios de la Profecía located north of Site 2 (350 E Ellis Avenue), Pacific Restoration Group located east of Site 2 (325 E Ellis Avenue), Certified Signs located west of Site 1 (1800 Goetz Road), and Skydive Perris located south of Site 1 (2091 Goetz Road). AERMOD also identifies a point of maximum impact. Details of the model inputs and output are provided in Appendix B.

Cancer risk to existing receptors was calculated for the inhalation pathway based on calculations and inputs provided by the California Office of Environmental Health Hazard Assessment (OEHHA), include age sensitivity factors, breathing rates, and cancer potency factor for OEHHA-defined age groups, based on receptor type (OEHHA 2015). Calculation details are provided in Appendix B. For residential receptors, a 30-year exposure is assumed that includes the third trimester to age 30. Although the nearest school is a high school, a nine year student exposure from ages 4 to 13 is conservatively assumed. For workers at the surrounding commercial and industrial areas, including the nearby church, worker exposure is based on a 25-year exposure duration from ages 16 to 41. In accordance with the OEHHA guidelines, the non-cancer risk hazard quotient for

diesel particulate matter is determined by dividing the concentration in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) by the reference exposure level for diesel particulate matter.

4.2.3 Regulatory Implementation

- RI AQ-1** All construction equipment for public and private projects will comply with CARB's vehicle standards including Section 2025, Title 13 which limits NO_x, PM₁₀ and PM_{2.5} emissions from on-road diesel truck fleets that operate in the state.
- RI AQ-2** All diesel-powered construction equipment used during project construction will comply with CARB Air Toxic Measure Rule 2485 which limits diesel powered equipment and vehicle idling to no more than 5 minutes at a location.
- RI AQ-3** The Project will be constructed in compliance with applicable South Coast AQMD rules and regulations including Rule 403, which requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. Control measures include but are not limited to application of water or chemical stabilizers to disturbed soils; managing haul road dust by application of water; covering haul vehicles; restricting vehicle speeds on unpaved roads to 15 mph; sweeping loose dirt from paved site access roadways; cessation of construction activity when winds exceed 25 mph and establishing a permanent stabilizing ground cover on finished sites. Water trucks will be utilized during all earth moving operations.
- RI AQ-4** During construction, the Project will comply with South Coast AQMD Rule 1113 which requires that architectural coatings will be limited to an average of 50 grams per liter or less of VOCs for building coatings and 100 grams per liter or less of VOCs for traffic coatings.
- RI AQ-5** The Proposed Project shall comply with all applicable requirements of the City of Perris Good Neighbor Guidelines – (Perris GNG) Siting New and/or Modified Industrial Facilities, adopted May 2022.

4.2.4 Environmental Impacts

The following sections address various potential impacts relating to air quality that could result from implementation of the Proposed Project.

4.2.4.1 Threshold AQ-1: Consistency with Applicable Air Quality Plan

Impact Analysis

In December 2022, the South Coast AQMD adopted the 2022 AQMP. The 2022 AQMP builds upon measures already in place from previous AQMPs and continues to evaluate current integrated strategies and control measures to meet the National Ambient Air Quality Standards, as well as explore new and innovative methods to reach its goals. Some of these approaches include utilizing incentive programs, recognizing existing co-benefit programs from other sectors, and developing a strategy with fair-share reductions at the federal, state, and local levels. The 2022 AQMP incorporates scientific and technological information and planning assumptions, including the Connect SoCal 2020 and updated emission inventory methodologies for various source categories. The Proposed Project's consistency with the AQMP has been determined using the 2022 AQMP.

Criteria for determining consistency with the AQMP are defined in Chapter 12, Section 12.2 and Section 12.3 of the South Coast AQMD CEQA Air Quality Handbook. These indicators are discussed below:

Consistency Criterion 1

Per the South Coast AQMD CEQA Air Quality Handbook, Consistency Criterion 1 states that the Proposed Project would result in a potentially significant impact to air quality if it 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 or the interim emissions reductions specified in the AQMP.

The violations that Consistency Criterion No. 1 refers to are the California and national ambient air quality standards. California and national ambient air quality standards violations would occur if regional or localized significance thresholds were exceeded.

Construction

As concluded below in Threshold AQ-2, the Proposed Project would exceed the applicable regional significance threshold of significance for VOC emissions from construction activity. VOC emissions from construction would be temporary and exceedances of South Coast AQMD regional and localized significance thresholds would cease upon the end of construction. However, as discussed below, mitigation is required to reduce impacts to less-than-significant levels. Following implementation of mitigation measure MM AQ-1, VOC emissions would be reduced and would not exceed regional thresholds. Therefore, the Proposed Project would not conflict with the AQMP following implementation of mitigation measure MM AQ-1.

Operation

As evaluated, the Proposed Project would not exceed the applicable regional and localized significance thresholds for operational activity. Therefore, the Proposed Project would not conflict with the AQMP according to this criterion. Based on the preceding discussion, the Proposed Project would be consistent with the first criterion.

Consistency Criterion 2

Per the South Coast AQMD CEQA Air Quality Handbook, Consistency Criterion 2 states that the Proposed Project would result in a potentially significant impact to air quality if it would exceed the assumptions in the 2022 AQMP at full build-out.

The AQMP demonstrates that the applicable ambient air quality standards can be achieved within the timeframes required under federal law. Growth projections from local general plans adopted by cities in the district are provided to SCAG, which develops regional growth forecasts, which are then used to develop future air quality forecasts for the AQMP. Development consistent with the growth projections in the City of Perris General Plan is considered to be consistent with the AQMP.

The Project Site is designated for Light Industrial and General Industrial uses. The Light Industrial designation provides for light industrial uses and related activities including manufacturing, research, warehouse and distribution, assembly of non-hazardous materials and retail related to manufacturing. The General Industrial designation provides for the development of basic industrial uses which may support a wide range of manufacturing and non-manufacturing uses, from large-scale warehouse and warehouse/distribution facilities to outdoor industrial activities.

The Proposed Project would consist of two warehouse buildings: Building 1 (795,109 square feet) and Building 2 (71,961 square feet) on Site 1. The Proposed Project would also include a 323-space truck/trailer lot on Site 2. These uses are consistent with the City's General Plan land use designations and intensity. The Proposed Project would not require a general plan amendment or zone change and therefore would be consistent with the City's growth projections. Additionally, the Proposed Project's construction and operational source air pollutant emissions would not exceed the regional or localized significance thresholds established by the South Coast AQMD.

Based on the preceding discussion, the Project would be consistent with the second criterion.

Summary

The Proposed Project may exceed regional or local significance thresholds for VOC during construction. Following implementation of mitigation measure MM AQ-1, potential impacts would be reduced to less-than-significant levels and the Proposed Project would not result in or cause national or California ambient air quality standards violations. The Proposed Project is consistent with the land use and growth intensities reflected in the City of Perris General Plan.

Furthermore, the Proposed Project operations would not exceed any applicable regional or localized South Coast AQMD thresholds of significance. As such, the Proposed Project would be consistent with the AQMP and a less than significant impact would occur with mitigation incorporated.

Significance of Impact

Potentially significant without mitigation.

4.2.4.2 Threshold AQ-2: Cumulative Increase in Criteria Pollutant Emissions

Impact Analysis

Construction

The estimated maximum daily construction emissions without mitigation are summarized in Table 4.2-6, Construction-Related Regional Pollutant Emissions (pounds per day). As shown, the Proposed Project would exceed the South Coast AQMD threshold of significance for VOC emissions. Mitigation measures are proposed as part of the Proposed Project and are further discussed under Sections 4.2.7, 4.2.8, and 4.2.9 of this EIR. Prior to mitigation, this impact would be potentially significant.

Table 4.2-6. Construction-Related Regional Pollutant Emissions (pounds per day)

Activity	VOC ³	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Maximum Daily Emissions ^{1,2}	172	86.4	43.9	<1	17.6	6.87
South Coast AQMD Thresholds	75	100	550	150	150	55
Significant?	Yes	No	No	No	No	No

Source: Appendix B.

Notes: CO = carbon monoxide; NO_x = oxides of nitrogen; PM₁₀ = particulate matter less than 10 microns in diameter; PM_{2.5} = particulate matter less than 2.5 microns in diameter; SO_x = sulfur oxides; VOC = volatile organic compounds;

¹ = Includes on-site and off-site emissions. On-site grading PM₁₀ and PM_{2.5} emissions show compliance with South Coast AQMD Rule 403 for fugitive dust;

² = Construction, painting and paving phases may overlap;

³ = South Coast AQMD Rule 1113 limits architectural coatings for buildings to 50 g/L VOC and parking lot striping to 100 g/L VOC.

Operation

Operation of the Proposed Project would result in criteria pollutant emissions from area sources (consumer products and landscape equipment), energy sources, and mobile sources (i.e., vehicles). The primary source of operational emissions generated by the Proposed Project would be from mobile sources, specifically, the trucks that would travel to and from the Project Site and operate within the Project Site. Trip generation data is discussed further in Section 4.13, Transportation, of this EIR. The Proposed Project is expected to generate approximately 2,730 average daily trips. The maximum daily pollutant emissions created from the Proposed Project's long-term operations are shown below in Table 4.2-7, Regional Operational Pollutant Emissions. As shown in Table 4.2-7, none of the South Coast AQMD thresholds of significance would be exceeded. Therefore, regional operational impacts would be less than significant.

Table 4.2-7. Regional Operational Pollutant Emissions

Activity	Pollutant Emissions (pounds per day)					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Mobile	8.87	35.5	99.3	<1	25.9	6.98
Energy	0.24	4.45	3.74	<1	0.34	0.34
Area Sources	27.2	0.32	37.7	<1	0.07	0.05
Emergency Fire Pump Testing (two pumps, 30 minutes per week)	<1	3.24	1.85	<1	<1	<1
Maximum Daily Emissions	36.3	43.51	142.59	<1	26.31	7.37
South Coast AQMD Thresholds	55	55	550	150	150	55
Significant?	No	No	No	No	No	No

Source: Appendix B.

Notes: CO = carbon monoxide; NO_x = oxides of nitrogen; PM₁₀ = particulate matter less than 10 microns in diameter; PM_{2.5} = particulate matter less than 2.5 microns in diameter; SO_x = sulfur oxides; VOC = volatile organic compounds

As discussed in Section 4.2.1.2, Existing Conditions, criteria air pollutants have the potential to result in health impacts, such as headaches or throat irritation, at the time of exposure. In December 2018, in the case of *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, the California Supreme Court held that an EIR air quality analysis must meaningfully connect the identified air quality impacts to the human health consequences of those impacts or meaningfully explain why that analysis cannot be provided.

Consistent with other local agencies, neither the City of Perris nor South Coast AQMD have adopted thresholds related to potential health impacts from criteria air pollutant emissions because individual exposure levels and individual reactions to localized short-term exposure to pollutant emissions from Project construction and operation cannot be feasibly determined. The localized level of ozone that receptors may be exposed to from VOC emissions cannot be determined because the formation of ozone is not directly determined by the quantity of VOC and NO_x emissions generated by a project (San Joaquin Valley APCD 2015). The amount of ozone formed depends on heat and sunlight exposure, and once formed, ozone is likely to be dispersed or carried away from the site by wind. Conversely, ozone exposure on site could have been transported to the site by wind and be attributable to another source (EPA 2024a). Currently, there are no known methods that can feasibly ascertain the ultimate locations of ozone formation associated with the emissions of ozone precursors such as VOC and NO_x (San Joaquin Valley APCD 2015).

In the absence to available data and methods to establish thresholds to reflect localized health impacts, the thresholds of significance adopted by the South Coast AQMD outlined in Tables 4.2-6 and Table 4.2-7 reflect Basin-wide consistency with the national and California ambient air quality standards, which are adopted to protect public health. Because the Project emissions are calculated to be below the South Coast AQMD thresholds of significance, the Project would not result in a significant contribution to impacts related to non-attainment of ambient air quality standards. The South Coast AQMD has also adopted the LSTs. The LSTs represent the maximum

emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area and distance to the nearest sensitive receptor. These thresholds of significance are intended to provide a better representation of potential local criteria pollutant exposure and potential health risks. Evaluation of localized impacts related to criteria pollutant emissions based on the LSTs, and cancer and chronic risks from diesel particulate matter from Project operation are addressed under Threshold 3.

Significance of Impact

Potentially significant without mitigation for Project construction. Less than significant for Project operation.

4.2.4.3 Threshold AQ-3: Sensitive Receptors

Impact Analysis

Those who are sensitive to air pollution include children, the elderly, and persons with preexisting respiratory or cardiovascular illness. For purposes of CEQA, the South Coast AQMD considers a sensitive receptor to be a location where a sensitive individual could remain for 24 hours, such as residences, hospitals, or convalescent facilities (South Coast AQMD 2008). Commercial and industrial facilities are not included in the definition because employees do not typically remain on-site for 24 hours. The nearest sensitive receptors to the Project Site include the Hunt Club Apartments located approximately 370 feet to the west of the Project Site (across Goetz Road and Case Road).

Localized Impacts from Criteria Pollutants

LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable national and California ambient air quality standards at the nearest residence or sensitive receptor. Receptor locations are off-site locations where individuals may be exposed to emissions from Proposed Project activities. Consistent with the South Coast AQMD LST Methodology, the nearest land use where an individual could remain for 24 hours (in this case the nearest residential land use) has been used to determine construction and operational air quality impacts for PM₁₀ and PM_{2.5} emissions, since PM₁₀ and PM_{2.5} thresholds are based on a 24-hour averaging time.

The nearest industrial/commercial use to the Project Site is used to determine construction and operational LST air impacts for emissions of NO_x and CO as the averaging periods for these pollutants are shorter (8 hours or less) and it is reasonable to assume that an individual could be present at these sites for periods of one to 8 hours. The nearest sensitive receptors to the Project Site include the Hunt Club Apartments located approximately 370 feet to the west of the Project Site (across Goetz Road and Case Road). However, the vacant land adjacent to the apartments and

closer to the Project Site is zoned for residential use. As such, a distance of 50 meters (or approximately 164 feet) is conservatively assumed for the purposes of this analysis.

Construction

The LST analysis for construction is dependent, in part, on the number of acres that would be disturbed during each phase of construction. The disturbed area per day is representative of a piece of equipment making multiple passes over the same land area. Construction activities associated with the Proposed Project would have the potential to generate air emissions and toxic air contaminant emissions. A complete list of off-road equipment assumed for construction activities, hours of operation, and maximum estimated emissions are presented in Appendix B. As previously mentioned, the local air quality emissions from construction were analyzed using the South Coast AQMD's Mass Rate Localized Significant Threshold Look-up Tables and the methodology described in the LST Methodology prepared by the South Coast AQMD.

Table 4.2-8, Local Construction Emissions at the Nearest Receptors, shows the on-site emissions from the CalEEMod model for the different construction phases compared to the LST emissions thresholds. The data provided in Table 4.2-8 shows that none of the analyzed criteria pollutants would exceed the local emissions thresholds at the nearest sensitive receptors. Therefore, a less than significant local air quality impact would occur from construction.

Table 4.2-8. Local Construction Emissions at the Nearest Receptors

Activity	On-Site Pollutant Emissions (pounds per day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Site Preparation	36	32.9	9.27	5.41
Grading	34.3	30.2	5.14	2.77
Building Construction	11.2	13.1	0.5	0.46
Paving	7.12	9.94	0.32	0.29
Architectural Coating	0.86	1.13	0.02	0.02
<i>South Coast AQMD Thresholds</i>	<i>302</i>	<i>2,178</i>	<i>40</i>	<i>10</i>
Exceed Threshold?	No	No	No	No

Source: Appendix B.

Notes:

Nearest receptor assumed to be area zoned for residentially use approximately 160 feet northwest of the Project Site (across Goetz Road and Case Road)

CO = carbon monoxide; NO_x = oxides of nitrogen; PM₁₀ = particulate matter less than 10 microns in diameter; PM_{2.5} = particulate matter less than 2.5 microns in diameter; SO_x = sulfur oxides; VOC = volatile organic compounds

Operation

Proposed Project-related air emissions from on-site sources such as architectural coatings, landscaping equipment, onsite usage of natural gas appliances as well as the operation of vehicles on-site may have the potential to exceed the state and federal air quality standards in the Proposed Project's vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the South Coast Air Basin. Like construction emissions, local air quality emissions from on-site operations

were analyzed according to the methodology described in the LST Methodology, prepared by the South Coast AQMD.

Table 4.2-9, Local Operational Emissions at the Nearest Receptors, shows the on-site emissions from the CalEEMod that includes natural gas usage, landscape maintenance equipment, and vehicles operating on-site and the calculated emissions thresholds. Per LST methodology, mobile emissions include only on-site sources which equate to approximately 16 percent of the Project-related new mobile sources. The data provided in Table 4.2-9 shows that the on-going Proposed Project operations would not exceed South Coast AQMD local operational thresholds of significance. Therefore, the on-going operations of the Proposed Project would not create a significant operations-related impact to local air quality due to on-site emissions.

Table 4.2-9. Local Operational Emissions at the Nearest Receptors

On-Site Emission Source	On-Site Pollutant Emissions (pounds per day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Area Sources	0.32	37.7	0.07	0.05
Energy Usage	4.45	3.74	0.34	0.34
Vehicle Emissions	5.68	15.89	4.14	1.12
Emergency Fire Pump Testing (two pumps, 30 minutes per week)	3.24	1.85	<1	<1
Total Emissions	13.69	59.18	4.55	1.51
<i>South Coast AQMD Thresholds</i>	302	2,178	10	3
Exceed Threshold?	No	No	No	No

Source: Appendix B.

Notes: Nearest receptor assumed to be area zoned for residentially use approximately 160 feet northwest of the Project Site (across Goetz Road and Case Road)

CO = carbon monoxide; NO_x = oxides of nitrogen; PM₁₀ = particulate matter less than 10 microns in diameter; PM_{2.5} = particulate matter less than 2.5 microns in diameter

Carbon Monoxide Hotspots

CO is the pollutant of major concern along roadways because the most notable source of CO is motor vehicles. For this reason, CO concentrations are usually indicative of the local air quality generated by a roadway network and are used as an indicator of potential local air quality impacts. Local air quality impacts can be assessed by comparing future without and with Proposed Project CO levels to the state and federal CO standards outlined above.

To determine if the Proposed Project could cause emission levels in excess of the CO standards discussed above, a sensitivity analysis is typically conducted to determine the potential for CO “hotspots” at a number of intersections in the general Project vicinity. Because of reduced speeds and vehicle queuing, “hotspots” potentially can occur at high traffic volume intersections with a Level of Service E or worse.

The analysis prepared for CO attainment in the South Coast Air Basin by the South Coast AQMD can be used to assist in evaluating the potential for CO exceedances in the South Coast Air Basin. CO attainment was thoroughly analyzed as part of the South Coast AQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan). As discussed in the 1992 CO Plan, peak CO concentrations in the South Coast Air Basin are due to unusual meteorological and topographical conditions, and not due to the impact of intersections. Considering the region's unique meteorological conditions and the increasingly stringent CO emissions standards, CO modeling was performed as part of 1992 CO Plan and subsequent plan updates and air quality management plans. In the 1992 CO Plan, a CO hot spot analysis was conducted for four busy intersections in Los Angeles at the peak morning and afternoon time periods. The 1992 CO Plan hot spot analysis is considered conservative and appropriately utilized for this EIR due to the high traffic volume modeled and the older date of the study. The analysis is conservative because CO emissions from similar traffic volumes have decreased since preparation of the analysis due to increased emissions standards. The intersections evaluated included: South Long Beach Boulevard and Imperial Highway (Lynwood); Wilshire Boulevard and Veteran Avenue (Westwood); Sunset Boulevard and Highland Avenue (Hollywood); and La Cienega Boulevard and Century Boulevard (Inglewood). These analyses did not predict a violation of CO standards. The busiest intersection evaluated was that at Wilshire Boulevard and Veteran Avenue, which had a daily traffic volume of approximately 100,000 vehicles per day. The Los Angeles County Metropolitan Transportation Authority evaluated the Level of Service in the vicinity of the Wilshire Boulevard/Veteran Avenue intersection and found it to be Level of Service E during the morning peak hour and Level of Service F during the afternoon peak hour (MTA 2004).

According to the Traffic Impact Analysis (Appendix J), under future (year 2025) conditions with regional growth at cumulative projects, eight (8) intersections would operate at a LOS E or F:

- Goetz Rd. & Ellis Av. (LOS F – A.M. and P.M. Peak Hours)
- Goetz Rd. & Mountain Av./Driveway 2 (LOS F – A.M. Peak Hour)
- Case Rd. & Ellis Av. (LOS F – A.M. and P.M. Peak Hours)
- Redlands Av. & 4th St. (LOS E - A.M. Peak Hour, LOS F - P.M. Peak Hours)
- Redlands Av. & Ellis Av. (LOS E – A.M. Peak Hour)
- Murrieta Rd. & Case Rd. (LOS F – A.M. and P.M. Peak Hours)
- Case Rd. & Mapes Rd. (LOS F – A.M. and P.M. Peak Hours)
- I-215 SB Ramps/SR-74 & Bonnie Dr. (LOS E - A.M. Peak Hour, LOS F - P.M. Peak Hours)

Construction and operation of the Proposed Project would not result in any additional delay at the intersections of Goetz Road/Ellis Avenue, Goetz Road/Mountain Av./Driveway 2, Murrieta Road/Case Road, or Case Road/Mapes Road. Therefore, the Proposed Project would not contribute to a potential CO hotspot at these intersections. The Proposed Project would have the potential to

increase delay at the remaining four intersections. However, the 1992 CO Plan showed that an intersection which has a daily traffic volume of approximately 100,000 vehicles per day would not violate the CO standard. With Project implementation, none of the remaining intersections would have an average daily traffic volume that exceeds 100,000 trips per day (refer to Appendix J, Exhibit 6-3, EAPC [2025] Traffic Volumes [Actual Vehicles]). Therefore, as the intersection volume falls far short of 100,000 vehicles per day, no CO “hotspot” modeling was required. The Proposed Project would not cause any additional roadway segments to operate at a LOS E or F. Therefore, no significant long-term air quality impact is anticipated to local air quality with the on-going operation of the Proposed Project.

Toxic Air Contaminants

Construction

The greatest potential for toxic air contaminant emissions during construction would be related to diesel particulate matter emissions associated with heavy equipment operations during construction of the Proposed Project. As described above for operational health risk methodology, health effects to residents from toxic air contaminants are generally described in terms of risk based on a 30-year exposure. Given the temporary and short-term construction schedule (approximately two years), the Proposed Project would not result in a long-term (i.e., lifetime or 30-year) exposure as a result of Proposed Project construction. Furthermore, construction-based PM emissions (including diesel exhaust emissions) do not exceed any local or regional thresholds.

Operation

Following construction, the Proposed Project would be a truck-serving use that would result in diesel particulate matter emissions in the Project area from diesel truck exhaust. As such, potential cancer and non-cancer hazard risk has been calculated for Project operation at nearby receptors, based on the methodology described in Section 4.2.2, Thresholds of Significance. Detailed emissions factor assumptions, risk calculations, and AERMOD modeling output are provided in Appendix B. Figure 4.2-1, Modeled Emissions Sources, provides the location of the modeled emissions sources. Figure 4.2-2, Receptor Locations, provides the location of the modeled receptors. As described above, grid receptors were also modeled within a 1,000-meter radius of the Project Site, and a point of maximum impact is also identified.

As previously described, cancer risk for residential receptors and the point of maximum impact assumes a 30.25-year exposure beginning at the third trimester. Cancer risks for the school assumes a 9-year exposure, and a 25-year exposure is assumed for worker receptors. Table 4.2-10, Calculated Cancer and Non-Cancer Risk from Construction, summarizes the cancer and non-cancer risk at the discrete receptors and the point of maximum impact. As shown in Table 4.2-10, the potential cancer risk attributable to the Proposed Project would not exceed the 10 in 1 million threshold at any discrete receptor, or the point of maximum impact, located within the Site 2 property line. Project operation would also not exceed a

health hazard index of 1.0 at the point of maximum impact or any discrete receptor. Therefore, the potential cancer and chronic non-cancer risk from Project operation would be less than significant.

Table 4.2-10. Calculated Cancer and Non-Cancer Risk from Operation

Receptor	UTM Coordinates	Annual DPM Concentration ($\mu\text{g}/\text{m}^3$)	Cancer Risk	Exceeds Threshold?	Chronic Non-Cancer Risk	Exceeds Threshold?
1. Hunt Club Apartments (1355 S Perris Blvd)	479195.68, 3736960.16	0.00090	0.61366	No	0.00018	No
2. Perris Park Apartments (1450 S Perris Blvd)	479046.80, 3736963.79	0.00055	0.37501	No	0.00011	No
3. Perris Lake High School (418 W Ellis Avenue)	478478.49, 3736969.24	0.00018	0.02806	No	0.00004	No
4. Pacific Restoration Group (325 E Ellis Avenue)	479834.81, 3736874.82	0.00319	0.19742	No	0.00064	No
5. Iglesia de Dios de la Profecia (350 E Ellis Avenue)	479751.29, 3736947.45	0.00262	0.16215	No	0.00052	No
6. Certified Signs (1800 Goetz Road)	479275.68, 3736516.17	0.00182	0.11264	No	0.00036	No
7. Skydive Perris (2091 Goetz Road)	479436.54, 3735925.58	0.00138	0.08541	No	0.00028	No
Point of Maximum Impact	479845.89, 3736735.83	0.00966	6.58661	No	0.00193	No

Source: Appendix B.

Notes: DPM = diesel particulate matter; UTM = Universal Transverse Mercator

In December 2018, in the case of *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, the California Supreme Court held that an Environmental Impact Report's (EIR) air quality analysis must meaningfully connect the identified air quality impacts to the human health consequences of those impacts or meaningfully explain why that analysis cannot be provided.

Most local agencies, including the City of Perris, lack the data to do their own assessment of potential health impacts from criteria air pollutant emissions, as would be required to establish customized, locally-specific thresholds of significance based on potential health impacts from an individual development project. The use of national or "generic" data to fill the gap of missing local data would not yield accurate results because such data does not capture local air patterns, local background conditions, or local population characteristics, all of which play a role in how a population experiences air pollution. Because it is impracticable to accurately isolate the exact cause of a human disease (for example, the role a particular air pollutant plays compared to the role of other allergens and genetics in causing asthma), existing scientific tools cannot accurately estimate health impacts of the Proposed Project's air emissions without undue speculation. Instead,

readers are directed to the Proposed Project's air quality impact analysis above, which provides extensive information concerning the quantifiable and non-quantifiable health risks related to the Proposed Project's construction and long-term operation.

Notwithstanding the above, this air quality analysis does evaluate the Proposed Project's localized impact to air quality for emissions of CO, NO_x, PM₁₀, and PM_{2.5} by comparing the Proposed Project's on-site emissions to the South Coast AQMD's applicable LST thresholds. The LST analysis above determined that the Proposed Project would not result in emissions exceeding South Coast AQMD's LSTs. Therefore, the Proposed Project would not be expected to exceed the most stringent applicable federal or state ambient air quality standards for emissions of CO, NO₂, PM₁₀, and PM_{2.5}.

As the Proposed Project's emissions would comply with federal, state, and local air quality standards, the Proposed Project's emissions are not sufficiently high enough to warrant use of a regional modeling program to correlate health effects on a basin-wide level and would not provide a reliable indicator of health effects if modeled.

Significance of Impact

Less than significant.

4.2.4.4 Threshold AQ-4: Odors

Impact Analysis

Land uses generally associated with odor complaints include: agricultural uses (livestock and farming); wastewater treatment plants; food processing plants; chemical plants; composting operations; refineries; landfills; dairies; and fiberglass molding facilities. The Proposed Project does not propose or require any additional land uses typically associated with emitting objectionable odors. Potential odor sources associated with the Proposed Project may result from construction equipment exhaust and the application of asphalt and architectural coatings during construction activities and the temporary storage of typical solid waste (refuse) associated with the Proposed Project's (long-term operational) uses. Standard construction requirements would minimize odor impacts from construction. The construction odor emissions would be temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction and are thus considered less than significant. It is expected that Proposed Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the City's solid waste regulations. The Proposed Project would also be required to comply with South Coast AQMD Rule 402 to prevent occurrences of public nuisances. Therefore, potential odors associated with the Proposed Project construction and operations would be less than significant and no mitigation is required.

Significance of Impact

Less than significant.

4.2.5 Cumulative Impacts

The following sections address various potential cumulative impacts relating to air quality that could result from implementation of the project.

4.2.5.1 Cumulative Threshold AQ-1: Consistency with Applicable Air Quality Plan

The AQMP is a cumulative plan for achieving ambient air quality standards in the South Coast Air Basin. As previously discussed, CARB designates the South Coast Air Basin as nonattainment for ozone, PM₁₀, and PM_{2.5} under California ambient air quality standards while the EPA designates the South Coast Air Basin as nonattainment for ozone and PM_{2.5} under the national ambient air quality standards. The AQMP is based on growth projections provided by SCAG. If projects are determined to be consistent with zoning/land use designations for the site, then cumulative projects would not have a cumulative impact. As indicated under the analysis of Threshold AQ-1, implementation of the Proposed Project may result in violation of regional and local significance thresholds for VOC. However, following implementation of mitigation measure MM AQ-1, VOC emissions would be reduced and would be compliant with air quality significance thresholds. The Proposed Project would then not result in a conflict with the South Coast AQMD 2022 AQMP and impacts would be reduced to less-than-significant levels. As such, with mitigation, construction of the Proposed Project would not result in a cumulatively considerable contribution to regional air quality impacts. The Proposed Project is consistent with existing zoning and land use designations for the Project Site. Therefore, the Proposed Project would be consistent with applicable air quality plans and would not result in a cumulatively considerable contribution to regional air quality impacts.

4.2.5.2 Cumulative Threshold AQ-2: Cumulative Increase in Criteria Pollutant Emissions

As indicated under the analysis for Threshold AQ-2, construction-source air pollutant emissions may result in exceedances of regional thresholds for VOC. However, following implementation of mitigation measure MM AQ-1, VOC emissions would be reduced to less-than-significant levels. Thus, the Proposed Project's emissions during construction would be less-than-cumulatively considerable with mitigation. Following construction, operation of the Proposed Project would be below the South Coast AQMD thresholds of significance and would not result in a cumulatively considerable impact. Therefore, with mitigation, the Proposed Project's localized emissions during construction and operation would not be cumulatively considerable.

4.2.5.3 Cumulative Threshold AQ-3: Sensitive Receptors

Active cumulative projects within a 1-mile radius of the Project Site are listed in Table 4.0-1 in Chapter 4.0, Environmental Analysis. The types of projects listed include housing, commercial/retail and hotel, business parks, gas stations, industrial, warehouse, and food establishment projects. These projects are at various stages of development and require individual analysis to determine air quality impacts to sensitive receptors.

As discussed under Threshold AQ-3, the Project would not result in localized impacts during construction or operation. Therefore, it is unlikely that Proposed Project onsite emissions would combine with emissions from a cumulative project to create a hotspot for any pollutant. Additionally, the CO hotspot analysis included traffic generated by cumulative projects. The Proposed Project would not result in any increase in delay at any intersection projected to operate at LOS E or F under future cumulative conditions. Accordingly, construction and long-term operation of the Proposed Project would not expose nearby sensitive receptors to substantial localized pollutant concentrations, and a cumulatively considerable impact would not occur.

4.2.5.4 Cumulative Threshold AQ-4: Odors

Impacts relative to objectionable odors are limited to the area immediately surrounding the odor source and are not cumulative in nature because the air emissions that cause odors disperse beyond the sources of the odor. As the emissions disperse, the odor becomes decreasingly detectable. Construction of cumulative projects would have the potential to occur simultaneously with the Project. Construction-related odors would include construction equipment exhaust and the application of asphalt and architectural coatings. However, generator of odors in any one area would be temporary, short-term, and intermittent in nature, and odors from multiple construction sites would be unlikely to combine to contribute to any cumulatively considerable odor impacts in the local area. Similar to the Proposed Project, the types of projects anticipated in Table 4.0-1 do not include typical sources of odor complaints. Cumulative projects would also be subject to City ordinances to limit nuisance odors, such as from waste disposal. Thus, Proposed Project-related odor impacts in combination with other cumulative projects would be less-than-cumulatively considerable.

4.2.6 Level of Significance Before Mitigation

4.2.6.1 Threshold AQ-1: Consistency with Applicable Air Quality Plan

Potentially Significant: The Proposed Project may result in violation of regional and local significance thresholds for VOC emissions during construction.

4.2.6.2 Threshold AQ-2: Cumulative Increase in Criteria Pollutant Emissions

Potentially Significant: The Proposed Project may result in a cumulatively considerable net increase of criteria pollutants for which the South Coast Air Basin is in non-attainment under an

applicable federal or state ambient air quality standard. Specifically, without mitigation, the Proposed Project could increase emissions of VOCs above the South Coast AQMD thresholds of significance.

4.2.6.3 Threshold AQ-3: Sensitive Receptors

Less Than Significant: The Proposed Project would not expose sensitive receptors to substantial pollutant concentrations related to CO hotspots, or from on-site construction of operation emissions.

4.2.6.4 Threshold AQ-4: Odors

Less than Significant: The Proposed Project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

4.2.7 Mitigation Measures

MM AQ-1: Criteria Pollutant Emissions – Architectural Coatings. Prior to Issuance of a Building Permit, the Applicant shall submit specifications to the City of Perris’ Building Division for review and approval that demonstrate that VOC emissions associated with architectural coatings shall be reduced through the use of “Super-Compliant” VOC coatings and paints (as defined in South Coast AQMD Rule 1113), or pre-coated materials such as bathroom stall dividers, and metal awnings. Construction specifications shall be included in building specifications.

4.2.8 Level of Significance After Mitigation

4.2.8.1 Threshold AQ-1 Consistency with Applicable Air Quality Plan

Table 4.2-11, Mitigated Construction-Related Regional Pollutant Emissions (pounds per day), summarizes maximum daily construction emissions with implementation of mitigation measure MM AQ-1. As shown in Table 4.2-11, there would be no violations of regional and local significance thresholds regarding VOC emissions from Proposed Project construction. Impacts would be reduced to less than significant levels. No significant and unavoidable impacts would occur.

4.2.8.2 Threshold AQ-2: Cumulative Increase in Criteria Pollutant Emissions

With implementation of mitigation measure MM AQ-1, potential impacts to air quality regarding VOC emissions from construction of the Proposed Project would be reduced to less than significant levels. No significant and unavoidable impacts would occur.

**Table 4.2-11. Mitigated Construction-Related Regional Pollutant Emissions
(pounds per day)**

Activity	VOC³	NO_x	CO	SO₂	PM₁₀	PM_{2.5}
Maximum Daily Emissions ^{1,2}	36.7	86.4	43.9	<1	17.6	6.87
<i>South Coast AQMD Thresholds</i>	75	100	550	150	150	55
Significant?	No	No	No	No	No	No

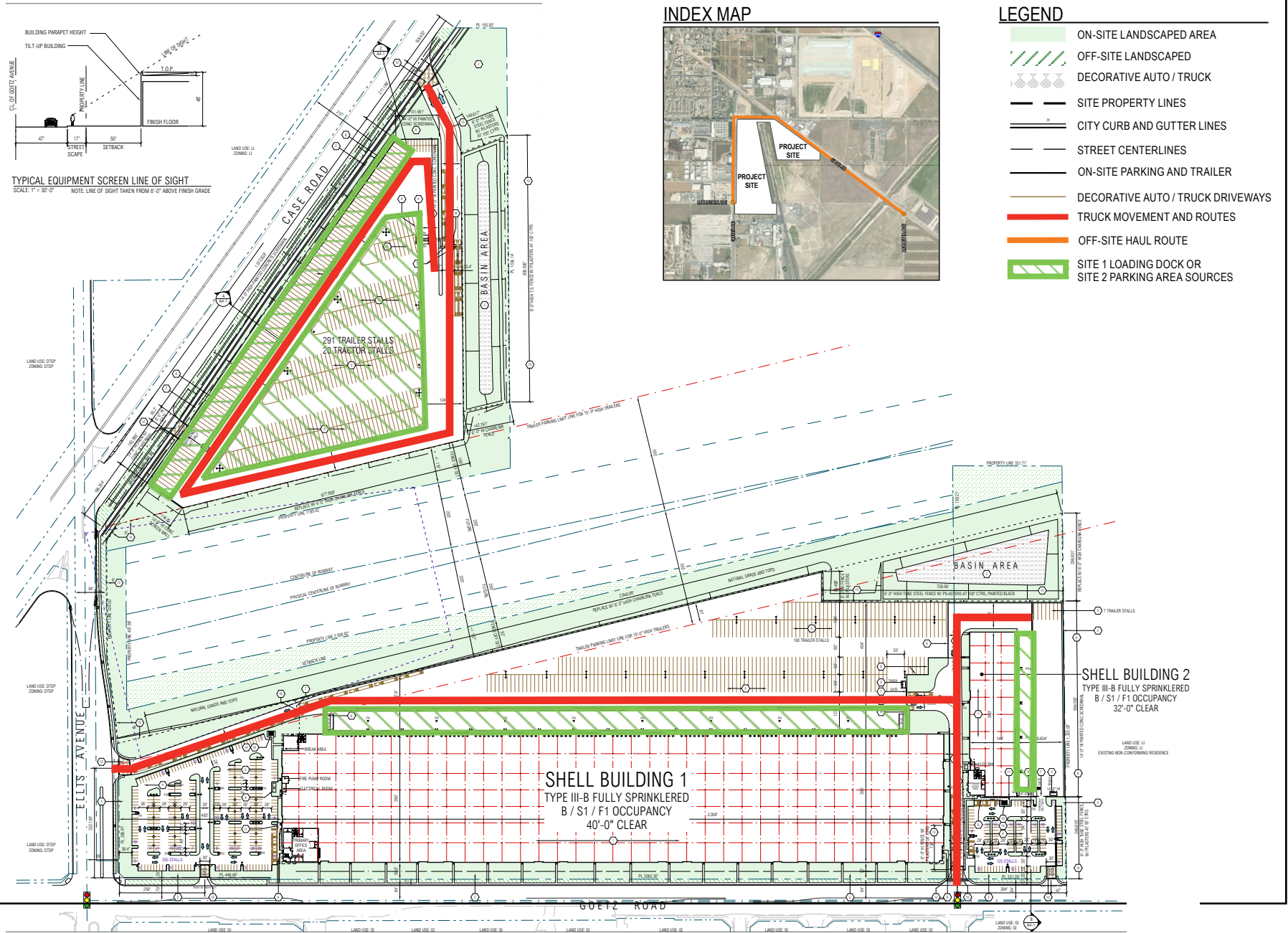
Source: Appendix B.

Notes: CO = carbon monoxide; NO_x = oxides of nitrogen; PM₁₀ = particulate matter less than 10 microns in diameter; PM_{2.5} = particulate matter less than 2.5 microns in diameter; SO_x = sulfur oxides; VOC = volatile organic compounds

¹ = Includes on-site and off-site emissions. On-site grading PM₁₀ and PM_{2.5} emissions show compliance with South Coast AQMD Rule 403 for fugitive dust.

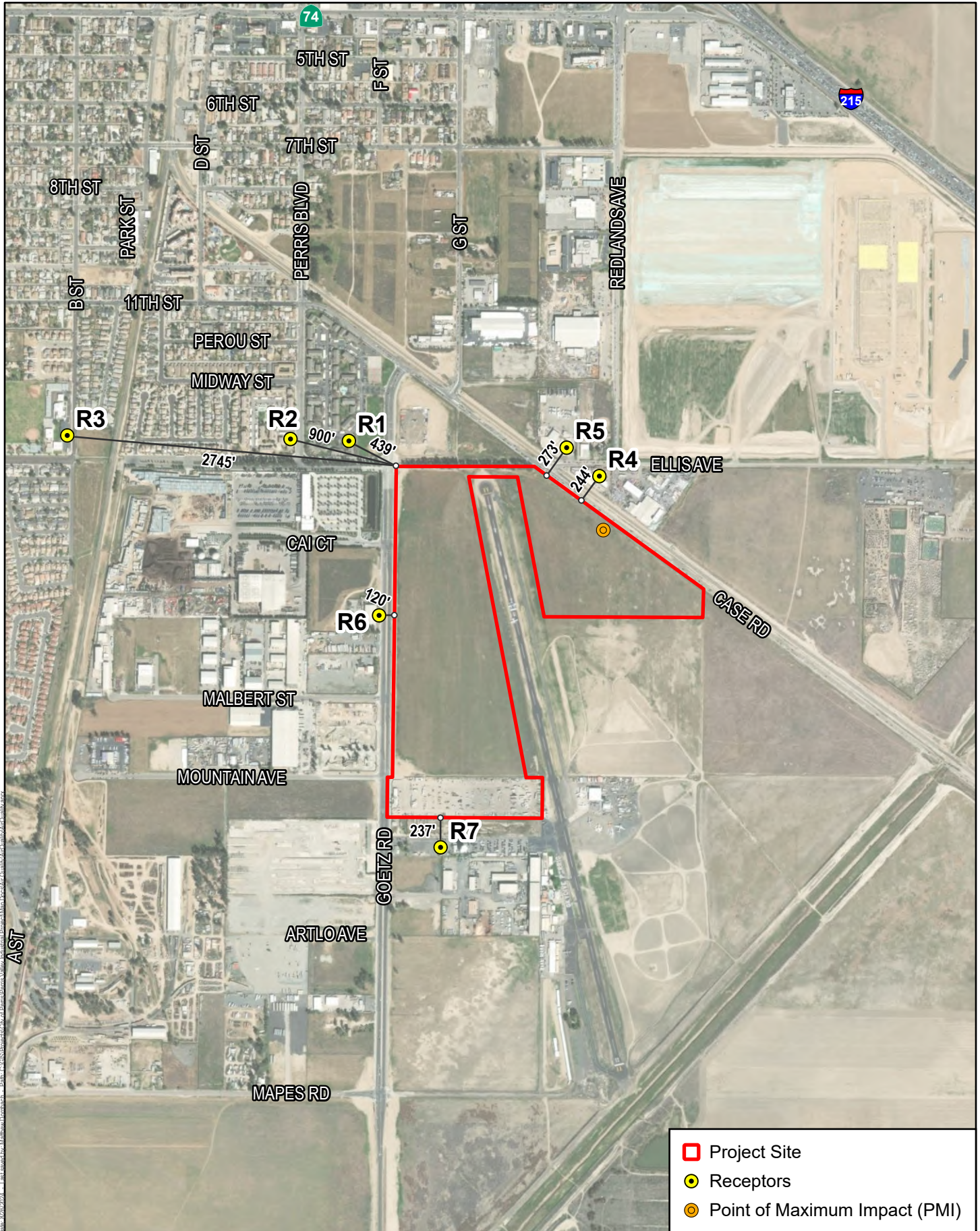
² = Construction, painting and paving phases may overlap.

³ = South Coast AQMD Rule 1113 "Super-Compliant" standard limits architectural coatings for buildings to 10 g/L VOC.



Source: RGA Architectural Design 2023.

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- Project Site
- Receptors
- Point of Maximum Impact (PMI)

Source: Maxar Imagery 2022.

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