FINAL

ENVIRONMENTAL IMPACT REPORT

5665 PLAZA DRIVE PROJECT

CYPRESS, CALIFORNIA

October 2024

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LIST OF ACRONYMS AND ABBREVIATIONS

°C	degrees Celsius
°F	degrees Fahrenheit
µg/m^3	micrograms per cubic meter
AAQS	ambient air quality standards
AB	Assembly Bill
ADT	average daily trips
amsl	above mean sea level
APN	Assessor's Parcel Number
AQMP	Air Quality Management Plan
Basin	South Coast Air Basin
BMPs	Best Management Practices
BTU	British Thermal Units
C_2H_3Cl	vinyl chloride
C_2F_6	hexafluoromethane
CAA	(federal) Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
Cal/OSHA	California Occupational Safety and Health Administration
CalEEMod	California Emissions Estimator Model
CALGreen Code	California Green Building Standards Code
California Register	California Register of Historical Resources
Cal/OSHA	California Occupational Safety and Health Administration
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CA MUTCD	Caltrans 2014 California Manual on Uniform Traffic Control Devices
CARB	California Air Resources Board
CARB Handbook	*Air Quality and Land Use Handbook: A Community Health Perspective*
CAT	Climate Action Team
CBC	California Building Code

CBSC	California Building Standards Commission
CCAA	California Clean Air Act
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CF_4	tetrafluoromethane
CGS	California Geological Survey
CH_4	methane
CHRIS	California Historical Resources Information System
City	City of Cypress
CMP	Congestion Management Program
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
COSR	Conservation/Open Space/Recreation
County	County of Orange
CPT	cone penetrometer test
CPUC	California Public Utilities Commission
dB	decibel(s)
dBA	A-weighted decibel(s)
DDC	deep dynamic compaction
du	dwelling unit
EIA	United States Energy Information Administration
EIR	Environmental Impact Report
EMFAC	EMission FACtor Model
EO	Executive Order
EQ Zapp	California Geological Survey's California Earthquake Hazards Zone Application
ESA	Environmental Site Assessment

EV	electric vehicle
FHWA	Federal Highway Administration
ft	foot/feet
FTA	Federal Transit Administration
GCC	global climate change
GHG	greenhouse gas
GWh	gigawatt-hours
GWP	global warming potential
H_2S	hydrogen sulfide
HAPs	Hazardous Air Pollutants
HBW	home-based work
HCM	*Highway Capacity Manual*
HFCs	hydrofluorocarbons
HVAC	heating ventilation and air conditioning
I-5	Interstate 5
I-605	Interstate 605
ICU	Intersection Capacity Utilization
IEPR	Integrated Energy Policy Report
IS	Initial Study
ITE	Institute of Transportation Engineers
JFTB	Joint Forces Training Base
Kizh Nation	Gabrieleño Band of Mission Indians – Kizh Nation
kWh	kilowatt hours
lbs/day	pounds per day
LCFS	Low Carbon Fuel Standard
L_{dn}	day-night average noise level
LEED	Leadership in Energy and Environmental Design
L_{eq}	equivalent continuous sound level
L_{max}	maximum A-weighted sound level
LOS	level of service
LST	Localized Significance Threshold

LT	long-term measurement
Ma	million years ago
mg/m^3	milligrams per cubic meter
MLD	Most Likely Descendant
MMRP	Mitigation Monitoring and Reporting Program
MMT	million metric tons
MND	Mitigated Negative Declaration
MPAH	(County of Orange) Master Plan of Arterial Highways
mpg	miles per gallon
mph	miles per hour
MPO	Metropolitan Planning Organization
MS4	Municipal Separate Storm Sewer System
MT	metric tons
MT CO_2e	metric tons of carbon dioxide equivalent
MT CO_2e/yr	metric tons of carbon dioxide equivalent per year
MT/yr	metric tons per year
MW	megawatt
N_2O	nitrous oxide
N/A	not applicable
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NAHC	Native American Heritage Commission
National Register	National Register of Historic Places
NAVD88	North American Vertical Datum of 1988
ND	no data
NHPA	National Historic Preservation Act of 1966
NHTSA	National Highway Traffic Safety Administration
NO_2	nitrogen dioxide
NOP	Notice of Preparation
NO_X	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System

NPS	National Park Service
O_3	ozone
OCFA	Orange County Fire Authority
OCTA	Orange County Transportation Authority
OCTAM	Orange County Transportation Analysis Model
OCWD	Orange County Water District
OHP	(California) Office of Historic Preservation
OPR	(California) Governor's Office of Planning and Research
Orange County Basin	Orange County Groundwater Basin
OSHA	Occupational Safety and Health Administration
Pb	lead
PC	Planned Community
PCE	passenger car equivalents
PFCs	perfluorocarbons
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
ppb	parts per billion
ppm	parts per million
PPV	peak particle velocity
PRC	California Public Resources Code
Project Applicant	Goodman
proposed project	5665 Plaza Drive Project
RCP	Regional Comprehensive Plan
ROGs	reactive organic gases
RPS	Renewables Portfolio Standard
RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board
SAFE	Safer Affordable Fuel Efficient
SB	Senate Bill

SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SCE	Southern California Edison
SCG	Southern California Geotechnical, Inc.
SCH	State Clearing House
SCS	Sustainable Communities Strategy
sf	square foot/feet
SF_6	sulfur hexafluoride
SHMA	Seismic Hazard Mapping Act
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SLF	Sacred Lands File
SO_2	sulfur dioxide
SoCalGas	Southern California Gas
SO_X	sulfur oxides
SPA	Specific Plan Amendment
Specific Plan	McDonnell Center Amended Specific Plan
SPL	sound power levels
SR-22	State Route 22
SR-91	State Route 91
SRA	Source Receptor Area
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminants
TAZ	traffic analysis zone
TCR	tribal cultural resources
TIA	Traffic Impact Analysis
TISG	Transportation Impact Study Guide
TRUs	Transport Refrigeration Units

TRU ACTM	Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units and TRU Generator Sets, and Facilities where TRUs Operate
UNFCCC	United Nations Framework Convention on Climate Change
USC	United States Code
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
v/c	volume-to-capacity
VdB	vibration velocity decibels
VMT	vehicle miles traveled
VOCs	volatile organic compounds
WDID	Waste Discharge Identification Number
Working Group	GHG CEQA Significance Threshold Working Group
WQMP	Water Quality Management Plan
ZEVs	zero emission vehicles
ZNE	zero net energy

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1.0 EXECUTIVE SUMMARY

1.1 INTRODUCTION

The California Environmental Quality Act (CEQA) requires that local government agencies, before taking action on projects over which they have discretionary approval authority, consider the environmental consequences of such projects. An Environmental Impact Report (EIR) is a document designed to provide to the public and to local and State governmental agency decision-makers an analysis of potential environmental consequences of a project to support informed decision-making.

This EIR has been prepared by the City of Cypress (City) to evaluate environmental impacts associated with the proposed 5665 Plaza Drive Project (proposed project); to discuss alternatives; and to propose mitigation measures that will minimize, offset, or otherwise reduce or avoid the identified potentially significant environmental impacts.

This EIR has been prepared pursuant to the requirements of CEQA (Public Resources Code (PRC) § 21000 *et seq*.) and the State CEQA Guidelines (California Code of Regulations [Cal. Code Regs.] Tit. 14 § 15000 *et seq*.). For purposes of CEQA, the City is the Lead Agency, and as such, has reviewed all submitted drafts, technical studies, and reports for consistency with applicable City regulations and policies and has commissioned the preparation of this EIR to reflect its own independent judgment.

Data for this EIR were obtained from on-site field observations; discussion with affected agencies; review of adopted plans and policies; review of available studies, reports, and data; and specialized environmental assessments prepared for the project (e.g., air quality, noise, and traffic).

The Executive Summary is intended to highlight the major areas of importance in the environmental analysis for the proposed project as required by State CEQA Guidelines Section 15123. The Executive Summary includes a brief description of the proposed project, areas of controversy known to the City, including issues raised by agencies and the public, a summary of the significant unavoidable impacts of the proposed project, and a summary of alternatives evaluated in the EIR. This Executive Summary also provides a table summarizing (1) the potential environmental impacts that would occur as a result of project implementation and operation; (2) the level of significance prior to implementation of mitigation measures; (3) regulatory compliance measures and mitigation measures that avoid or reduce the significant impacts of the proposed project, and (4) the level of significance after mitigation measures are implemented.

1.2 SUMMARY OF PROJECT DESCRIPTION

The proposed project would be located on an approximately 8.53-acre site (project site) at 5665 Plaza Drive in the City of Cypress, California. In its existing setting, the project site is developed with one five-story office building (150,626 square feet) and associated parking lot with existing light poles, and landscaping. The project site is bounded by industrial and office uses to the north, industrial uses to the west, Plaza Drive to the south, and the Goodman Commerce Center Project to the east. The Goodman Commerce Center Project, approved in April 2023, was under construction at the time of the preparation of this EIR.

The proposed project includes the demolition of an existing 150,626-square-foot five-story office building on the project site and the construction of a new 191,394-square-foot light industrial building with 181,061 square feet of warehouse space and 10,333 square feet of office space. The maximum height of the new light industrial building would be approximately 51 feet, 6 inches to the top of the parapet wall. The proposed project would provide 25 loading docks on the west side of the proposed building. The proposed project would relocate the existing driveway locations. The new westernmost driveway would be the primary truck access point and path to the truck loading docks on the proposed building's west side. Additionally, the proposed project would include a lot line adjustment to move the project site's eastern property line approximately 20 feet east, and amendments to the McDonnell Center Specific Plan to allow light industrial uses within the eastern portion of Planning Area 1 and an increase in the maximum allowable square footage of Planning Area 1.

Required discretionary actions associated with the proposed project include the following: certification of the EIR; a Specific Plan Amendment to the McDonnell Center Specific Plan to allow light industrial uses within the eastern portion of Planning Area 1, and removal of the maximum developable area requirement while retaining the 1.0:1 FAR to maintain consistency with the General Plan; and a Site plan approval.

1.3 AREAS OF CONTROVERSY

Pursuant to State CEQA Guidelines Section 15123, this EIR acknowledges the areas of controversy and issues to be resolved that are known to the City or were raised during the scoping process. On May 7, 2024, a Notice of Preparation (NOP) for the EIR was posted to the City's website and distributed by the City via the State Clearinghouse (SCH). The NOP was circulated for review from May 7 to June 5, 2024. The SCH number for this EIR is SCH No. 2020069007. In accordance with State CEQA Guidelines Section 15082, the NOP was circulated to public agencies and interested individuals and was posted at the Orange County Clerk-Recorder's Office for a period of 30 days. During the 30-day public scoping period, written comments were solicited pertaining to environmental issues/topics that this EIR should evaluate. The City held a virtual public scoping meeting on Tuesday, May 28, 2024, to present the proposed project and to solicit input from interested parties. One public comment was received during the Scoping Meeting. The issues and concerns raised in response to the NOP or at the scoping meeting are summarized as follows:

Allyssa J. Holcomb, Garrett Stiepel Ryder, LLP, on behalf of Warland Investments Company

- **Air Quality:** Concern related to excessive air pollution due to the assumption that the proposed project could foreseeably be used as a logistics center. Concern that the proposed project failed to address the impact of refrigerated trucks on air quality and did not evaluate the air quality impact of off-site effects, such as vehicle and truck trips. Concerns regarding the cumulative short and long-term impacts to air quality in surrounding areas due to the proposed project.

- **Greenhouse Gas Emissions:** Concern that proposed project emissions would exceed the South Coast Air Quality Management District (SCAQMD) greenhouse gas (GHG) emissions threshold and concern that the analysis also fails to clearly evaluate the effects of off-site GHG emissions.

- **Land Use:** Suggestion that the City should limit the scope of the EIR to current permitted land uses.

- **Noise:** Concern related to increased noise generation due to the proposed project's foreseeable use as a logistics center.

- **Traffic:** Concern related to increased traffic congestion due to the proposed project's foreseeable use as a logistics center. Concern related to the Truck Distribution Map in the Traffic Analysis for the proposed project. It was stated that the analysis failed to account for truck traffic from the combined 5665 Plaza Drive Project and Goodman Commerce Center Project. It was stated that the proposed project made the incorrect assumption that 100 percent of truck traffic would exit via Driveway 1 and omitted detailed projections for truck routes, especially regarding the impact on nearby residential areas. Concern that the Traffic Analysis inaccurately estimated daily truck trips by solely evaluating the 5665 Plaza Drive project, rather than considering the Goodman Commerce Center as a logistics hub, leading to a significant underestimation of truck traffic impacts.

City of Los Alamitos

- **Air Quality:** Suggestion that the Draft EIR include an evaluation of the proposed project's impact on air quality due to the proposed change in land use.

- **Greenhouse Gas Emissions:** Suggestion that the Draft EIR include an evaluation of the proposed project's impact on GHG emissions due to the proposed change in land use.

- **Noise:** Suggestion that the proposed project include an evaluation of the project's noise impacts due to the change in land use, proximity to sensitive noise receptors, and maximum noise levels provided in applicable General Plans, including the City of Los Alamitos General Plan.

- **Traffic:** Suggestion that the Draft EIR include the existing truck routes, the project's impact to and along the truck routes, and any impacts or needs to modify truck routes. Suggestion that the proposed project should provide a traffic and/or access analyses that evaluates the daily truck trips and their distribution and influence on Los Alamitos roadways.

Native American Heritage Commission (NAHC)

- **Tribal Cultural Resources**: Outlined the City's tribal consultation requirements under Assembly Bill 52 and Senate Bill 18.

1.4 SIGNIFICANT UNAVOIDABLE IMPACTS

Section 15126.2(b) of the State CEQA Guidelines requires that an EIR describe significant environmental impacts that cannot be avoided, including those effects that can be mitigated but not reduced to a less than significant level.

1.5 ALTERNATIVES

1.5.1 Alternatives Evaluated in this EIR

PRC Section 21100 and State CEQA Guidelines Section 15126 require an EIR to identify and discuss a No Project Alternative and a reasonable range of alternatives to the proposed project that would feasibly attain most of the basic objectives of the project and would avoid or substantially lessen any of the significant environmental impacts. The following four alternatives have been determined to represent a reasonable range of alternatives that have the potential to feasibly attain most of the basic objectives of the proposed project but that may avoid or substantially lessen any of the significant impacts of the proposed project. Therefore, the alternatives considered in this EIR include the following:

- **Alternative 1 – No Project Alternative:** Consistent with State CEQA Guidelines Section 15126.6, the No Project Alternative assumes the existing land uses and condition of the project site at the time the NOP was published (May 2024) would remain unchanged. The No Project Alternative represents the environmental conditions that would exist if no new development of any kind were to occur on the project site. Under the No Project Alternative, the existing five-story office building on the project site would remain in place. The setting of the project site at the time the NOP was published is described in Chapter 4.0 of this Draft EIR with respect to individual environmental issues and forms the baseline of the impact assessment of the proposed project. While the No Project Alternative would avoid the potential impacts of the proposed project and require no mitigation measures, none of the project objectives would be achieved.

- **Alternative 2 – Reduced Footprint Alternative:** Alternative 2 would occupy the same building footprint as the proposed project and would include the construction and operation of a light-industrial building on the project site; however, Alternative 2 would reduce the project footprint by one-third (33 percent). Under this alternative, it is assumed that the light industrial building would be built out at 127,596 square feet (63,798 square feet smaller than the proposed project) and operate at a reduced capacity as compared to the proposed project. Similar to the proposed project, Alternative 2 would be located on the same approximately 8.53-acre project site, include demolition of the existing 150,626-square-foot five-story office building, and construction of a new light industrial building, with associated landscaping, surface parking, and utility improvements. Alternative 2 would provide the same number of loading docks on the western side of the proposed building (25 docks) and the same number of parking spaces (206 parking stalls) on all sides of the new building. Similar to the proposed project, Alternative 2 would relocate the two existing driveways, providing a new westernmost driveway that would be the primary truck access point and path to the truck loading docks on the proposed building's west side, and a new eastern driveway, which would be a shared driveway with the parcel to the east.

- **Alternative 3 – No Refrigeration Warehouse Alternative:** The No Refrigeration Warehouse Alternative includes the construction and operation of a light-industrial building on the project site similar to the proposed project; however, Alternative 3 would not include any refrigerated space in the light industrial building or the access to the project site by refrigerated trucks. Similar to the proposed project, the Alternative 3 would be located on an approximately

8.53-acre site and include the demolition of the existing 150,626-square-foot five-story office building on the project site and the construction of a new 191,394-square-foot light industrial building with 181,061 square feet of warehouse space and 10,333 square feet of office space with associated landscaping, surface parking, and utility improvements. Alternative 3 would provide the same number of loading docks on the west side of the proposed building and include the same number of parking spaces on all sides of the new building. Additionally, similar to the proposed project, the No Refrigeration Warehouse Alternative would relocate two existing driveways, providing a new westernmost driveway that would be the primary truck access point and path to the truck loading docks on the proposed building's west side and a new eastern driveway, which would be a shared driveway with the parcel to the east. However, Alternative 3 would see reduced operational emissions of criteria pollutants and greenhouse gases.

- **Alternative 4: Deep Dynamic Compaction (DDC) and Stone Columns:** Alternative 4 would occupy the same building footprint as the proposed project; however, under Alternative 4, both DDC and stone columns would be utilized to reduce the liquefaction potential of project soils. DDC is a ground improvement technique that 10-ton weight that would be dropped at a height of 60 feet. Stone columns involve filling pre-augered cavities with aggregate, the aggregate is then compacted using static ground pressure combined with a high frequency, low amplitude vibratory hammer. Under Alternative 4, stone columns would be placed around the periphery of the project site, while DDC would only be implemented near the central portions of the project site to reduce vibratory impacts to nearby buildings. Like the proposed project, Alternative 4 would be located on an approximately 8.53-acre site and include the demolition of the existing 150,626-square-foot five-story office building on the project site and the construction of a new 191,394-square-foot light industrial building with 181,061 square feet of warehouse space and 10,333 square feet of office space with associated landscaping, surface parking, and utility improvements. Alternative 4 would provide the same number of loading docks on the west side of the proposed building and include the same number of parking spaces on all sides of the new building. Additionally, similar to the proposed project, Alternative 4 would relocate two existing driveways, providing a new westernmost driveway that would be the primary truck access point and path to the truck loading docks on the proposed building's west side and a new eastern driveway, which would be a shared driveway with the parcel to the east.

1.5.2 Identification of the Environmentally Superior Alternative

CEQA requires the identification of an Environmentally Superior Alternative among the project and the alternatives evaluated in an EIR. State CEQA Guidelines Section 15126.6(e)(2) provides that, if the No Project/No Build Alternative is the Environmentally Superior Alternative, then the EIR shall also identify an Environmentally Superior Alternative among the other alternatives and the proposed project. Putting aside the No Project Alternative, Alternative 4 is the Environmentally Superior Alternative because this alternative would reduce impacts to noise and vibration from "Less than Significant with Mitigation Incorporated" to "Less than Significant" and would have the least impact on noise and vibration compared to all other alternatives. Alternative 4 would also meet all of the project objectives of the proposed project. Accordingly, it is determined that Alternative 4 is the Environmentally Superior Alternative because it would meet all of the project's

objectives and would result in reduced impacts to noise and vibration as compared to the proposed project.

1.6 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Table 1.1 identifies the potential project environmental impacts, proposed mitigation measures, and level of significance after mitigation is incorporated into the project. Environmental topics addressed in this EIR include Air Quality, Cultural Resources, Energy, Geology and Soils, Greenhouse Gas Emissions, Noise, Transportation and Traffic, and Tribal Cultural Resources.

1.6.1 Secondary Effects of Mitigation Measures

In accordance with State CEQA Guidelines Section 15126.4(a)(1)(D), if any mitigation measure would cause one or more significant effects in addition to those that would be caused by the proposed project, the effects of the mitigation measure shall be discussed. The mitigation measures proposed (as listed on **Table 1.1**) require the Applicant/Developer to provide evidence that the project would adhere to existing programs, regulations, or recommendations in technical reports. The regulations and policies listed in the mitigation measures have been evaluated during their respective adoptions or approval processes. No secondary effects related to the proposed mitigation measures are expected to occur.

Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
4.2: Air Quality		
Threshold AIR-1: Would the project conflict with or obstruct implementation of the applicable air quality plan? **Less Than Significant Impact.** The proposed project would not conflict with or obstruct implementation of the 2022 AQMP because the project's construction and operational emissions would not exceed the SCAQMD regional significance thresholds or Localized Significance Thresholds (LSTs), and the proposed project is consistent with the land use and growth intensities reflected in the adopted General Plan. Furthermore, the project would not exceed any applicable regional or local thresholds. Based on the consistency analysis provided in Section 4.1 Air Quality of the Draft EIR, the proposed project would be consistent with the regional AQMP. Therefore, the proposed project would not conflict with or obstruct implementation of the applicable air quality plan. Impacts would be less than significant, and no mitigation is required.	No mitigation is required.	Less Than Significant Impact.
Threshold AIR-2: Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard? **Less Than Significant Impact.** **Construction.** Construction emissions associated with the proposed project would not exceed the SCAQMD's thresholds for VOCs, NO_X, CO, SO_X, $PM_{2.5}$, and PM_{10}. Therefore, construction of the proposed project would not result in a cumulatively considerable increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or State AAQS. Impacts would be less than significant, and no mitigation is required. **Operation.** Operational emissions associated with the proposed project would not exceed the significance criteria for daily VOCs, NO_X, CO, SO_X, PM_{10}, or $PM_{2.5}$ emissions. Therefore, operation of the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or State AAQS. Impacts would be less than significant, and no mitigation is required.	No mitigation is required.	Less Than Significant Impact.
Threshold AIR-3: Would the project expose sensitive receptors to substantial pollutant concentrations? **Less Than Significant Impact.** The proposed project would not result in an exceedance of a SCAQMD LST during project construction or operation. Therefore, the project would not expose sensitive receptors to substantial pollutant concentrations, and impacts would be less than significant. Mitigation is not required.	No mitigation is required.	Less Than Significant Impact.
Threshold AIR-4: Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? **Less Than Significant Impact.** **Construction** Heavy-duty equipment on the project site during construction would emit odors, primarily from equipment exhaust. In addition, the application of asphalt and architectural coatings during construction activities may result in odors. 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. **Operation.** The proposed project would construct a light industrial building. Therefore, the proposed project does not contain land uses typically associated with emitting objectionable odors. The proposed project would also be required to comply with SCAQMD Rule 402 to prevent occurrences of public nuisances. Therefore, odors associated with the proposed operations would be less than significant, and no mitigation is required.	No mitigation is required.	Less Than Significant Impact.
Cumulative Air Quality Impacts. **Less Than Significant Impact.** The cumulative impact area for air quality related to the proposed project is the South Coast Air Basin. Each project in the Basin is required to comply with SCAQMD rules and regulations and is subject to independent review. Per SCAQMD guidance, projects that exceed project-specific significance thresholds are considered to be cumulatively considerable. Conversely, projects that do not exceed project-specific thresholds are generally not considered to be cumulatively significant. The Basin is currently designated as a nonattainment area for the federal O_3 standard and $PM_{2.5}$ standard and as a nonattainment area for the State O_3, PM_{10}, and $PM_{2.5}$ standard. Thus, the Basin has not met the federal and State standards for these air pollutants. Future development that may take place with implementation of the project would contribute criteria pollutants to the area during project construction and operation.	No mitigation is required.	Less Than Significant Impact.

Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
Air pollution is inherently a cumulative type of impact measured across an air basin. The discussion under Threshold AQ-2, above, includes an analysis of the proposed project's contribution to cumulative air impacts. As discussed above, construction emissions associated with the proposed project would not exceed the SCAQMD thresholds for VOCs, NOx, CO, SO_X, $PM_{2.5}$, or PM_{10} emissions. The proposed project's construction- and operation-related regional daily emissions are less than the SCAQMD significance thresholds for all criteria pollutants. In addition, adherence to SCAQMD rules and regulations on a project-by-project basis would substantially reduce potential impacts associated with the related projects and basin-wide air pollutant emissions. Therefore, the proposed project would not have a cumulatively considerable increase in emissions and the proposed project's cumulative air quality impacts would be less than significant.		
4.4: Cultural Resources		
Threshold CUL-1: Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5? **No Impact.** The SCCIC record search results and field survey identified no previously recorded cultural resources on or in soils on the project site. As such, there are no historical resources as defined in State CEQA Guidelines Section 15064.5 located within the project site. The proposed project would not cause a substantial adverse change in the significance of a historical resource, and no mitigation is required.	No mitigation is required.	No Impact.
Threshold CUL-2: Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? **Less than Significant with Mitigation Incorporated**. According to the City of Cypress General Plan, there are no known archaeological resources located in Cypress. The project site has been previously disturbed to construct an office building and a surface parking lot. The existing office building at the project site would be demolished, materials removed or repurposed, and the entirety of the site would be graded for the construction of the proposed project. During site preparation/grading activities, there is the potential to encounter unknown cultural resources. In the event that historical or archaeological resources are encountered during grading and construction, operations shall cease and **Mitigation Measure CUL-1** would be implemented. With the implementation of **Mitigation Measure CUL-1,** project impacts to archaeological resources would be less than significant with mitigation incorporated.	**Mitigation Measure CUL-1** **Unknown Archaeological Resources.** In the event that archaeological resources are discovered during excavation, grading, or construction activities, work shall cease within 50 feet of the find until a qualified archaeologist from the Orange County List of Qualified Archaeologists has evaluated the find in accordance with federal, State, and local guidelines to determine whether the find constitutes a "unique archaeological resource," as defined in Section 21083.2(g) of the California Public Resources Code (PRC). The Applicant and its construction contractor shall not collect or move any archaeological materials and associated materials. Construction activity may continue unimpeded on other portions of the project site. Any found deposits shall be treated in accordance with federal, State and local guidelines, including those set forth in PRC Section 21083.2, and shall be assessed, handled, and treated consistent with accepted standards, such as the Secretary of the Interior's standards and guidelines for archaeology and historic preservation. Prior to commencement of grading activities, the Director of the City of Cypress (City) Community Development Department, or designee, shall verify that all project grading and construction plans include specific requirements regarding California PRC (Section 21083.2[g]) and the treatment of archaeological resources as specified above.	Less Than Significant with Mitigation Incorporated.
Threshold CUL-3: Would the project disturb any human remains, including those interred outside of dedicated cemeteries? **Less Than Significant Impact.** Although no human remains are known to be on the project site or are anticipated to be discovered during project construction, due to ground disturbance there is a possibility of inadvertent discovery of human remains. Disturbing human remains could violate the State's Health and Safety Code as well as destroy the resource. **Regulatory Compliance Measure CUL-1** requires compliance with the State's Health and Safety Code for the treatment of human remains. Adherence to regulatory standards included in **Regulatory Compliance Measure CUL-1** would reduce the impact of the proposed project on human remains to less than significant. No mitigation is required.	**Regulatory Compliance Measure CUL-1** **Human Remains.** In the event that human remains are encountered on the project site, work within 50 feet of the discovery shall be redirected and the County Coroner notified immediately consistent with the requirements of California Code of Regulations (CCR) Section 15064.5(e). State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code (PRC) Section 5097.98. If the remains are determined to be Native American, the County Coroner shall notify the Native American Heritage Commission (NAHC), which shall determine and notify a Most Likely Descendant (MLD). With the permission of the property owner, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD may recommend scientific removal and non-destructive analysis of human remains and items associated with Native American burials. Consistent with CCR Section 15064.5(d), if the remains are determined to be Native American and an MLD is notified, the City of Cypress shall consult with the MLD	Less Than Significant Impact.

Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
	as identified by the NAHC to develop an agreement for treatment and disposition of the remains. Prior to the issuance of grading permits, the Director of the City of Cypress Community Development Department, or designee, shall verify that all grading plans specify the requirements of CCR Section 15064.5(e), State Health and Safety Code Section 7050.5, and PRC Section 5097.98, as stated above.	
Cumulative Cultural Resources Impacts. **Less Than Significant with Mitigation Incorporated.** Because impacts to cultural resources are typically site specific, the geographic scope of the proposed project for purposes of the cumulative impacts analysis would be the project site and the immediately surrounding area. The proposed project would have no impacts to historical resources. Therefore, when combined with the potential impacts of the past, present, and reasonably foreseeable projects identified in **Table 4.1, Summary of Cumulative Projects**, in Chapter 4.0 of this EIR, the proposed project would not contribute to cumulative impacts. The cumulative projects all likely involved or would involve some level of ground disturbance with potential for inadvertent discovery of archaeological resources or human remains. As previously discussed, the proposed project would implement **Mitigation Measure CUL-1** in the case of accidental discovery of archaeological resources and **Regulatory Compliance Measure CUL-1** in the event human remains were accidentally discovered. Compliance with these measures would reduce any impacts to these resources associated with the proposed project to less than significant. Similarly, the cumulative projects would be required to comply with applicable laws and regulations pertaining to discovery of these resources. Accordingly, any cumulative impacts would be less than significant.	Refer to **Regulatory Compliance Measure CUL-1** and **Mitigation Measure CUL-1**, provided under **Thresholds CUL-2** and **CUL-3** above.	Less Than Significant with Mitigation Incorporated.
4.5: Energy		
Threshold ENG-1: Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? **Less Than Significant Impact.** **Construction.** Construction activities are not anticipated to result in an inefficient use of energy because gasoline and diesel fuel would be supplied by construction contractors who would conserve the use of their supplies to minimize their costs on the proposed project. Energy usage on the project site during construction would be temporary in nature and would be relatively small in comparison to the State's available energy sources. Construction activities would comply with all existing regulations, as required through the City's development permitting process, and would not use large amounts of energy or fuel in a wasteful, inefficient, or unnecessary manner. In addition, the proposed project would be required to comply with **Regulatory Compliance Measure EN-1** which would reduce energy usage on the project site during construction through reducing truck idling times. With implementation of **Regulatory Compliance Measure EN-1**, impacts to energy resources during project construction would be less than significant, and no mitigation is required. **Operation.** Energy use consumed by the proposed project would be associated with natural gas use, electricity consumption, and fuel used for vehicle and truck trips associated with the project. The estimated potential net increase in electricity demand associated with the operation of the proposed project is 3,106,447 kWh per year. Total electricity consumption in Orange County in 2022 was 20,243.7 GWh or 20,243,721,856 kWh. Therefore, operation of the proposed project would increase the annual electricity consumption in Orange County by less than 0.1 percent. The estimated potential net increase in natural gas demand associated with the proposed project is 38,407 therms per year. Total natural gas consumption in Orange County in 2022 was 572 million therms (572,454,744 therms). Therefore, operation of the proposed project would negligibly increase the annual natural gas consumption in Orange County by less than 0.1 percent. In addition, the proposed project would result in energy usage associated with gasoline and diesel to fuel project-related trips. The proposed project is estimated to result in the net decrease of approximately 6,498 gallons of gasoline and the net increase of approximately 132,401 of diesel fuel per year from existing conditions. Based on fuel consumption obtained from EMFAC2021, 155.9 million gallons of diesel and 1.2 billion gallons of gasoline are anticipated to be consumed from vehicle trips in Orange County in 2023. Therefore, vehicle and truck trips associated with the proposed project would not increase the annual gasoline fuel use in Orange County and would increase the annual diesel fuel use by approximately 0.1 percent in Orange County. Therefore, operation of the proposed project would represent a very small percentage of the annual gasoline and diesel fuel consumption in Orange County. Vehicles associated with trips to and from the project site would be subject to fuel economy and efficiency standards, which are applicable throughout the State. The proposed project would not result in the wasteful, inefficient, or unnecessary consumption of fuel or energy and would incorporate renewable energy or energy efficiency measures into building design, equipment uses, and transportation. Impacts would be less than significant, and no mitigation measures would be necessary.	**Regulatory Compliance Measure EN-1 Limit Idling Time.** The Applicant and construction contractor would be required to comply with applicable idling regulations for on-road vehicles during project construction and operation, which require truck drivers to turn off their engines within five minutes of idling.	Less Than Significant Impact.

Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
Threshold ENG-2: Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency? **Less Than Significant Impact. E**nergy usage on the project site during construction would be temporary in nature and would be relatively small in comparison to the overall use in the County. In addition, energy usage associated with operation of the proposed project would be relatively small in comparison to the overall use in Orange County and the State's available energy sources. Therefore, energy impacts at the regional level would be negligible. Because California's energy conservation planning actions are conducted at a regional level, and because the proposed project's total impact on regional energy supplies would be minor, the proposed project would not conflict with or obstruct California's energy conservation plans as described in the CEC's Integrated Energy Policy Report. Additionally, as demonstrated above, the proposed project would not result in the inefficient, wasteful, and unnecessary consumption of energy. Potential impacts related to conflict with or obstruction of a State or local plan for renewable energy or energy efficiency would be less than significant, and no mitigation is required.	No mitigation is required.	Less Than Significant Impact.
Cumulative Energy Impacts. **Less Than Significant Impact.** The geographic area for cumulative analysis of electricity is that of the SCE service area, while the geographic area for cumulative analysis of natural gas service is that of the SoCalGas service area. Construction and operation of the proposed project would result in an increased demand for electricity and natural gas service. However, this increase would be minimal and would not require SCE to expand or construct infrastructure that could cause substantial environmental impacts. The proposed project would not result in the demand for natural gas during construction; however, operation of the proposed project would increase on-site natural gas demand. As discussed previously, the estimated potential net increase in electricity demand associated with the operation of the proposed project is 3,106,447 kWh per year. Total electricity consumption in Orange County in 2022 was 20,243.7 GWh or 20,243,721,856 kWh and operation of the proposed project would increase the annual electricity consumption in Orange County by less than 0.1 percent. By 2030, consumption in Orange County is anticipated to increase by 12,000 GWh for the low-demand scenario and by 22,000 GWh for the high-demand scenario.[1] While this forecast represents a large increase in electricity consumption, the proposed project's share of cumulative consumption would be negligible. Energy use associated with the proposed project, in combination with energy use from the cumulative projects, would be within SCE's system-wide net annual increase in electricity supplies over the 2018 to 2030 period, and there are sufficient planned electricity supplies in the region for estimated net increases in energy demands. The estimated potential net increase in natural gas demand associated with proposed project operations is 38,407 therms per year. Development of the cumulative projects is not anticipated to require additional natural gas infrastructure or result in a substantial increase in demand. Total natural gas consumption in the SoCalGas service area in 2022 was 5,026 million therms (1,646 million therms for the industrial sector). Total natural gas consumption in Orange County in 2022 was 572 million therms (352 million therms for the residential sector and 221 million therms for the non-residential sector).[2] Per SoCalGas's forecast, total natural gas consumption in the SoCalGas service area is expected to remain steady through 2030 for low- and mid-demand scenarios and to increase by approximately 650 million therms under a high-demand scenario due to intense energy efficiency efforts.[3] Proposed project operations would negligibly increase the annual natural gas consumption in Orange County by less than 0.1 percent. It is anticipated that SoCalGas would be able to meet the natural gas demand of the proposed project and the cumulative projects without the need to develop additional facilities. In addition, both SCE and SoCalGas demand forecasts include the growth contemplated by the proposed project and the cumulative projects within their respective service areas. Increased energy efficiency to comply with building energy efficiency standards would reduce energy consumption on a per-square-foot basis. Furthermore, utility companies are required to increase their renewable energy sources to meet the Renewable Portfolio Standards mandate of 60 percent renewable supplies by 2030. SCE and SoCalGas plan to continue to provide reliable service to their customers and upgrade their distribution systems as necessary to meet future demand. In addition, the proposed project would result in energy usage associated with gasoline and diesel to fuel project-related trips. The proposed project is estimated to result in the net decrease of approximately 6,498 gallons of gasoline and the net increase of approximately 132,401 of diesel fuel per year from existing conditions. Based on fuel consumption obtained from EMFAC2021, 157.1 million gallons of diesel and 1.2 billion gallons of gasoline are anticipated to be consumed from vehicle trips in Orange County in 2024.	Refer to **Regulatory Compliance Measure EN-1** provided under **Threshold ENG-1**above.	Less Than Significant Impact.

1 CEC. 2018. *California Energy Demand, 2018–2030 Revised Forecast*. Publication Number: CEC-200-2018-002-CMF. February. Website: https://efiling.energy.ca.gov/getdocument.aspx?tn=223244 (accessed May 13, 2024).
2 CEC. 2019b. Gas Consumption by County. Website: http://www.ecdms.energy.ca.gov/gasbycounty.aspx (accessed May 13, 2024).
3 CEC. 2018. *California Energy Demand, 2018–2030 Revised Forecast*. Publication Number: CEC-200-2018-002-CMF. February. Website: https://efiling.energy.ca.gov/getdocument.aspx?tn=223244 (accessed May 13, 2024).

Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
Therefore, vehicle and truck trips associated with the proposed project would not increase the annual gasoline fuel use in Orange County and would increase the annual diesel fuel use by approximately 0.1 percent in Orange County. Therefore, operation of the proposed project would represent a very small percentage of the annual gasoline and diesel fuel consumption in Orange County. Compliance with **Regulatory Compliance Measure EN-1** would help ensure that the proposed project does not result in an inefficient, wasteful, and unnecessary consumption of energy. Therefore, the proposed project's contribution to impacts related to the inefficient, wasteful, and unnecessary consumption of energy would not be cumulatively considerable, and no mitigation is required.		
4.6: Geology and Soils		
Threshold GEO-1(i): Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidences of known fault? (Refer to Division of Mines and Geology Special Publication 42) **No Impact.** According to the Geotechnical Evaluation, active faults do not appear to be present under or in close proximity to the project site. Additionally, according to the California Geological Survey's EQ Zapp: California Earthquake Hazards Zone Application (EQ Zapp web-based application), the Newport-Inglewood and Whittier Fault Zones are the nearest fault zones located approximately 5.1 miles southwest and 11.6 miles northeast of the project site, respectively. Therefore, surface rupture is not anticipated to occur within the project site or surrounding vicinity. No impact would occur, and no mitigation is required.	No mitigation is required	No Impact.
Threshold GEO-1 (ii): Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Strong seismic ground shaking? **Less Than Significant with Mitigation Incorporated.** The Geotechnical Evaluation determined no evidence of active faults to be present under or in close proximity to the project site. However, incidental ground cracking and other ground shaking phenomena can occur due to high seismic accelerations and regional seismic activity. Thus, it was determined in the Geotechnical Evaluation that risks associated with seismic shaking and strong ground motion are considered to be moderate. As specified in **Regulatory Compliance Measure GEO-1**, below, the proposed project's building would be subject to the seismic design criteria of the most current CBC requirements that aim to prevent building collapse and reduce the impacts of seismic ground shaking. Adherence to these requirements would address injury and loss of life and building damage after an earthquake. Therefore, with the implementation of **Regulatory Compliance Measure GEO-1**, impacts related to seismic ground shaking would be less than significant, and no mitigation is required.	**Regulatory Compliance Measure GEO-1** **Compliance with Seismic and Building Standards in the Building Code**. Prior to issuance of the first building permit for the proposed buildings, the City of Cypress (City) Engineer, Building Official, or their designee, and the project soils engineer shall review the building plans to verify that the structural design conforms to the requirements of the City's latest adopted edition of the California Building Standards Code. Structures and walls shall be designed in accordance with applicable sections of the City's Building Code.	Less Than Significant Impact.
Threshold GEO-1 (iii): Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Seismic-related ground failure, including liquefaction? **Less Than Significant with Mitigation Incorporated.** According to the California Geological Survey's EQ Zapp, the project site is located in a Liquefaction Hazards Zone of required investigations. The Geotechnical Evaluation included a subsurface exploration and has determined the presence of potentially liquefiable soils to depths of 50 feet. Further analysis determined potential dynamic settlements of approximately 2.9 inches to 5.27 inches during a strong seismic event. Given the nature of the proposed project, which includes a light industrial facility with office and warehouse uses, differential settlements under current conditions could be significant. Thus, remedial grading, foundation considerations, and/or in-situ ground improvement measures are recommended in the Geotechnical Evaluation to help mitigate potential adverse effects due to soil liquefaction. Implementation of **Mitigation Measure GEO-1**, which requires the construction contractor to comply with the recommendations in the Geotechnical Evaluation to reduce the proposed project's impact related to liquefaction would be required. Therefore, with implementation of **Mitigation Measure GEO-1**, the proposed project's impacts related to liquefaction would be reduced to less than significant. The project would also be required to adhere to **Regulatory Compliance Measure GEO-1.**	**Mitigation Measure GEO-1** **Implementation of Geotechnical Evaluation Recommendations.** The Applicant's construction contractor shall implement the recommendations of the Geotechnical Evaluation prepared for the proposed project, as applicable, to the satisfaction of the City of Cypress' (City) Building Official, or designee. The City's Building Official, or designee, shall confirm recommendations have been implemented into the design and construction of the proposed project prior to the issuance of a building permit. **Regulatory Compliance Measure GEO-1 is** provided above.	Less Than Significant Impact with Mitigation Incorporated
Threshold GEO-1(iv): Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Landslides? No Impact. According to the City's General Plan Safety Element (2001), no significant topographic features exist within the City. Further, according to the Geotechnical Evaluation, the topography of the site is relatively flat to very gently sloping. Evidence of ancient landslides or slope instabilities were not observed at the project site. Both the project site and surrounding properties are flat with no unusual geographic features, and therefore, neither the project site nor the surrounding area has the potential for impacts related to landslides. No mitigation is required.	No mitigation is required.	No Impact.

Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
Threshold GEO-2: Would the project result in substantial soil erosion or the loss of topsoil? **Less Than Significant Impact.** **Construction.** During project construction activities, soil would be exposed and disturbed, drainage patterns would be temporarily altered during grading and other construction activities, and there would be an increased potential for soil erosion and siltation compared to existing conditions. the Construction General Permit requires preparation of a Storm Water Pollution Prevention Plan (SWPPP) (**Regulatory Compliance Measure HYD-1** in **Appendix B** of the Initial Study and the MMRP). The SWPPP would detail Erosion Control and Sediment Control Best Management Practices (BMPs) to be implemented during project construction to minimize erosion and retain sediment on site. With compliance with the requirements of the Construction General Permit and with implementation of the construction BMPs, construction impacts related to substantial soil erosion and loss of topsoil would be less than significant. **Operation:** Operation of the proposed project would not result in substantial soil erosion or loss of topsoil. Potential soil erosion impacts related to construction activities would be less than significant with adherence to the required regulations discussed above. Operation of the proposed project would result in no impacts related to soil erosion or loss of topsoil. No mitigation is required.	Refer to **Regulatory Compliance Measure HYD-1**, which is provided in **Appendix B** of the Initial Study and in the MMRP to the Draft EIR.	Less Than Significant Impact.
Threshold GEO-3: Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-site or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse? **Landslides and Unstable Slopes.** **Less Than Significant Impact.** Because the project site is in a flat area, landslides or other forms of natural slope instability do not represent a significant hazard to the project site or the surrounding area. The site is not within an area susceptible to landslides as both the project site and surrounding properties are flat with no unusual geographic features. Therefore, potential impacts related to landslides would be less than significant, and no mitigation is required. **Lateral Spreading.** **Less Than Significant Impact.** The Geotechnical Evaluation indicates that heavy lateral spreading is considered a low risk while ground cracking displacements, and localized spread is considered a moderate risk. These risks would be reduced by the implementation of **Regulatory Compliance Measure GEO-1**, which would include ground treatment and dewatering, as well as providing a capping of engineered fill. Therefore, potential impacts related to lateral spreading would be less than significant, and no mitigation is required. **Landslides and Unstable Slopes** **Less Than Significant Impact.** Because the project site is in a flat area, landslides or other forms of natural slope instability do not represent a significant hazard to the project site or the surrounding area. In addition, as discussed under Threshold GEO-1(iv), the site is not within an area susceptible to landslides as both the project site and surrounding properties are flat with no unusual geographic features. Therefore, potential impacts related to landslides would be less than significant, and no mitigation is required. **Lateral Spreading** **Less Than Significant Impact**. The Geotechnical Evaluation indicates that heavy lateral spreading is considered a low risk while ground cracking displacements, and localized spread is considered a moderate risk. These risks would be reduced by the implementation of **Regulatory Compliance Measure GEO-1**, which would include ground treatment and dewatering, as well as providing a capping of engineered fill. Therefore, potential impacts related to lateral spreading would be less than significant, and no mitigation is required. **Subsidence** **Less Than Significant Impact.** As specified in **Regulatory Compliance Measure GEO-1**, the proposed project's buildings would be subject to the seismic design criteria of the most current CBC requirements that aim to prevent building collapse and reduce the impacts of seismic ground shaking. Adherence to these requirements would address injury and loss of life and building damage during and after an earthquake. The proposed project's compliance with the most current CBC requirements would also reduce the project's impacts related to subsidence. Adherence to these requirements would address the removal and replacement of site soils. Therefore, with the implementation of **Regulatory Compliance Measure GEO-1**, impacts related to seismic ground shaking would be less than significant, and no mitigation is required. **Liquefaction and Compressible/Collapsible Soils** **Less Than Significant Impact.** As discussed under Threshold GEO-1(iii) above, implementation of **Mitigation Measure GEO-1** and adherence to the regulatory standards described in **Regulatory Compliance Measure GEO-1** would be required to address the proposed project's impacts with respect to liquefaction. Provided that design and remedial grading and ground improvement (as necessary) are	Refer to **Mitigation Measure GEO-1** and **Regulatory Compliance Measure GEO-1,** which are provided under **Threshold GEO-1** above.	Less Than Significant Impact.

Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
performed in accordance with the applicable requirements in the CBC, and current standards of practice in the area, excessive settlement resulting from liquefaction and compression of existing undocumented fill and some layers of loose sands and silty sands on the project site would be reduced to a less than significant level.		
Threshold GEO-4: Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating direct or indirect substantial risks to life or property? **Less Than Significant Impact**. According to the Geotechnical Evaluation prepared for the proposed project, surface site soils had a "very low" potential for expansion. No recommendations are provided in the Geotechnical Evaluation related to expansive soils due to this very low potential. Therefore, impacts related to expansive soils for the proposed project would be less than significant. No mitigation is required.	No mitigation is required.	Less Than Significant Impact.
Threshold GEO-5: Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? **No Impact.** The proposed project would not include the use of septic tanks or alternative wastewater disposal systems because sanitary sewer and wastewater facilities are available in the vicinity of the project site. Therefore, the project would have no impact with respect to septic tanks or alternative wastewater disposal systems.	No mitigation is required.	No Impact.
Threshold GEO-6: Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? **Less Than Significant with Mitigation Incorporated.** The project site contains Artificial Fill, which has no paleontological sensitivity, and Young Alluvium, Unit 2, which has low paleontological sensitivity from the surface to a depth of 10 feet and high paleontological sensitivity below 10 feet. With a maximum excavation depth of 8 feet during construction, the proposed project is expected to remain in deposits with no or low paleontological sensitivity. However, in the event that paleontological resources are encountered during construction, **Mitigation Measure GEO-2**, detailed below, would require work in the immediate area of the discovery to be halted and a qualified paleontologist to assess the discovery. These procedures would reduce potential impacts to scientifically significant nonrenewable paleontological resources encountered during construction.	**Mitigation Measure GEO-2** **Procedures for Unexpected Paleontological Resources Discoveries.** In the event that paleontological resources are encountered, work in the immediate area of the discovery shall be halted and the Applicant shall retain a professional paleontologist who meets the qualifications established by the Society of Vertebrate Paleontology to assess the discovery. The qualified, professional paleontologist shall make recommendations regarding the treatment and disposition of the discovered resources, as well as the need for subsequent paleontological mitigation, which may include, but not be limited to, paleontological monitoring, collection of observed resources, preservation, stabilization and identification of collected resources, curation of resources into a museum repository, and preparation of a monitoring report of findings, consistent with well accepted standards, such as those established by the Society of Vertebrate Paleontology. The City of Cypress shall ensure that the recommendations from the qualified, professional paleontologist shall be followed by the Applicant.	Less Than Significant with Mitigation Incorporated.
Cumulative Geology and Soils Impacts. **Less Than Significant Impact.** Typically, geology and soils impacts are specific to a particular project site and there is little, if any, cumulative relationship between the development of a proposed project and development within a larger cumulative area. Moreover, while seismic conditions are regional in nature, seismic impacts on a given project site are site-specific. While seismic events may affect a broad region, development of the cumulative projects would not increase the intensity, frequency, or duration of seismic events or the properties of off-site geology or soils. The CBC (adopted by reference in Chapter 15.08 [Construction Codes] of the City's Municipal Code) contains provisions to safeguard against major structural failures or loss of life caused by earthquakes, liquefaction, ground shaking, landslides, and other seismically induced hazards, as codified in **Regulatory Compliance Measure GEO-1**. In addition, the Geotechnical Evaluation recommendations would reduce potential impacts related to seismic ground shaking, liquefaction, compressible/collapsible soils as required by **Mitigation Measure GEO-1.** Cumulative development projects would be required to undergo environmental review pursuant to CEQA including, as necessary, site-specific investigation of potential geologic, seismic, or soil-related impacts. It is reasonable to expect that such site-specific investigation would appropriately identify the siting, design, and construction criteria established in the CBC and/or by the City to address site-specific geologic/soil conditions affecting future development, and that the City would condition future development to fully satisfy said criteria. Therefore, cumulative geologic, seismic, or soil-related impacts would be rendered to a less than significant level, and the project's contribution to such impacts would not be cumulatively considerable. Potential impacts of the proposed project to unknown paleontological resources and unique geologic features, when combined with the impacts of past, present, and reasonably foreseeable probable future projects in the City of Cypress, could contribute to a cumulatively significant impact due to the overall loss of paleontological remains unique to the region. However, each development proposal received by the City is required to undergo environmental review pursuant to CEQA. If there were any potential for significant impacts to paleontological resources or unique geologic features, an investigation would be required to determine the nature and extent of the	Refer to **Mitigation Measure GEO-1** and **Mitigation Measure GEO-2** and **Regulatory Compliance Measure GEO-1,** which are provided under **Threshold GEO-1 and GEO-6** above.	Less Than Significant Impact.

Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
resources and identify appropriate mitigation measures. When resources are assessed and/or protected as they are discovered, impacts to these resources are less than significant. As such, implementation of **Mitigation Measure GEO-2** would ensure that the proposed project, together with cumulative projects, would not result in significant cumulative impacts to unique paleontological resources or unique geologic features.		
4.7: Greenhouse Gas Emissions		
Threshold GHG-1: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? **Less Than Significant Impact.** **Construction.** Demolition and construction activities associated with the proposed project would produce combustion emissions from various sources. During construction, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically use fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO_2, CH_4, and N_2O. Furthermore, CH_4 is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change. It is estimated that the proposed project would generate a total of approximately 536.4 MT CO_2e during construction of the project. When annualized over the 30-year life of the project, annual emissions would be 17.9 MT CO_2e. **Operation.** Long-term operation of the proposed project would generate GHG emissions from area, mobile, stationary, waste, and water sources as well as indirect emissions from sources associated with energy consumption. The proposed project would generate a total of 406 average daily trips (ADT), including 262 passenger vehicle trips, 50 two-axle truck trips, 16 three-axle truck trips, and 78 four-axle truck trips, which were included in CalEEMod. Existing uses would generate a total of 408 ADT. Mobile sources would be the largest source of GHG emissions for the proposed project at approximately 61 percent of the total project emissions. Energy sources would be the next largest category at approximately 33 percent. Water sources would be approximately 4 percent of the total emissions and waste sources would be approximately 2 percent of the total emissions. Area sources would be approximately less than 1 percent of the total emissions. Based on the analysis results, the proposed project would result in a net increase of 2,925.9 MT CO_2e/yr over existing conditions, which would be below the numeric threshold of 3,000 MT CO_2e. Therefore, operation of the proposed project would not generate significant GHG emissions that would have a significant effect on the environment. As such, impacts related to operational GHG emissions would be less than significant. No mitigation is required.	No mitigation is required.	Less Than Significant Impact.
Threshold GHG-2: Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? **Less Than Significant Impact.** Applicable plans adopted for the purpose of reducing GHG emissions include CARB's 2022 Scoping Plan Update and SCAG's 2024–2050 RTP/SCS. The proposed project would not conflict with the stated goals of the RTP/SCS; therefore, the proposed project would not interfere with SCAG's ability to achieve the region's GHG reduction targets of 19 percent below 2005 per capita emissions levels by 2035, and it can be assumed that regional mobile emissions would decrease in line with the goals of the RTP/SCS. The proposed project would consist of a 191,394-square-foot light industrial building. Based on the nature of the proposed project, it is anticipated that implementation of the proposed project would not interfere with SCAG's ability to implement the regional strategies outlined in the RTP/SCS. Therefore, the proposed project would not conflict with plans, policies, or regulations adopted for the purpose of reducing GHG emissions. Impacts would be less than significant, and no mitigation is required.	No mitigation is required.	Less Than Significant Impact.
Cumulative Greenhouse Gas Impacts. **Less Than Significant Impact.** Cumulative impacts are the collective impacts of one or more past, present, or reasonably foreseeable probable future projects, that when combined, result in adverse changes to the environment. Climate change is a global environmental problem in which: (1) any given development project contributes only a small portion of any net increase in GHGs, and (2) global growth is continuing to contribute large amounts of GHGs across the world. Land use projects may contribute to the phenomenon of global climate change in ways that would be experienced worldwide, and with some specific effects felt in California. However, no scientific study has established a direct causal link between individual land use project impacts and global warming. **Table 4.1: Summary of Cumulative Projects** identifies the past, present, and reasonably foreseeable probable future projects that when considered with the proposed project could result in cumulative impacts. The analysis of impacts related to GHG emissions is inherently cumulative. Potential	No mitigation is required.	Less Than Significant Impact.

Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
cumulative impacts would occur if the proposed project, when considered with the cumulative projects would result in significant impacts to GHGs. While the proposed project would generate GHGs as part of project construction and operations, these emissions would not exceed applicable thresholds. In addition, the proposed project would not conflict with applicable statewide and regional climate action plans and policies. Therefore, the proposed project's GHG emissions would not be cumulatively considerable and cumulative impacts associated with the proposed project would be less than significant.		
4.11: Noise		
Threshold NOI-1: Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? **Less Than Significant Impact.** **Construction.** Short-term noise impacts would be associated with demolition of the existing office building, excavation, grading, and construction of the proposed structure. Construction-related short-term noise levels would be higher than existing ambient noise levels in the vicinity of the project site at the present time but would no longer occur once construction of the proposed project is completed. The combination of the equipment during the site preparation and grading phases, considering the usage factor of each piece of equipment, would result in a combined noise level of 59 dBA L_{eq} at a distance of 1,300 feet, which represents the distance from the center of construction activity at the project site to the nearest noise-sensitive hotel use (Courtyard by Marriott) to the southeast. While construction-related short-term noise levels have the potential to be higher than existing ambient noise levels in the vicinity of the project site under existing conditions, the noise impacts would no longer occur once project construction is completed. During deep dynamic compaction activities, the major source of noise would be the crane utilized to drop the weight. Construction noise levels would be similar to those during building construction as that construction phase would also include the operation of a crane. Although construction noise would be higher than the ambient noise in the vicinity of the project site, it would cease to occur once project construction is completed. Additionally, with the incorporation of **Regulatory Compliance Measure NOI-1**, all feasible and reasonable measures to reduce construction noise would be implemented, and a less than significant impact would occur. **Operation.** The increase in noise associated with project-related traffic would be very small, ranging from 0.0 to 1.7 dBA along the analyzed road segments. A noise level increase of less than 3 dBA would not be perceptible to the human ear in an outdoor environment; These noise level increases are not perceptible by the human ear; therefore, off-site traffic noise impacts would be less than significant. No mitigation is required. Implementation of the proposed project would generate various on-site stationary noise sources, including heating, ventilation, and air conditioning (HVAC) and dock operations. The project would have various rooftop mechanical equipment, including HVAC units, on the proposed building. To be conservative, it is assumed the project could have four (4) rooftop HVAC units that would operate 24 hours per day and would generate sound power levels (SPL) of up to 76 dBA SPL or 63 dBA L_{eq} at 5 feet. Noise levels generated by delivery trucks would be similar to noise readings from truck loading and unloading activities, which generate a noise level of 75 dBA L_{eq} at 20 feet. To present a conservative assessment, it is assumed that unloading activities could occur at half of the 25 docks simultaneously for a period of more than 30 minutes in a given hour. Additionally, at the remaining half of the loading docks, it is conservatively assumed that refrigeration units attached to the trailers would be in operation while waiting to be unloaded. Based on reference measurements, each unit would have a reference noise level of 79.4 dBA at 15 feet. The proposed project would not substantially increase noise levels over existing conditions. Additionally, the proposed project will generate daytime and nighttime operational noise level increases ranging from 60 to 55 dBA L_{eq}. The estimated noise level at the closest noise-sensitive uses would be less than 34 dBA L_{eq}. Additionally, the proposed project would not substantially increase noise levels over existing conditions. Therefore, this impact would be less than significant. No mitigation is required.	**Standard Condition NOI-1** **Construction Noise and Vibration.** Prior to issuance of grading permits, the City of Cypress (City) Director of Community Development Department, or designee, shall verify that grading and construction plans include the following requirements: • Ensure that the greatest distance between noise sources and sensitive receptors during construction activities has been achieved. • Construction equipment, fixed or mobile, shall be equipped with properly operating and maintained noise mufflers consistent with manufacturers' standards • Construction staging areas shall be located away from off-site sensitive uses during the later phases of project development. • The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from noise-sensitive receptors nearest the project site whenever feasible. • The construction contractor shall use on-site electrical sources to power equipment rather than diesel generators where feasible. • A sign, legible at a distance of 50 feet, shall also be posted at the construction site. as well as provide a telephone number for the "noise disturbance coordinator." • A "noise disturbance coordinator" shall be established. The disturbance coordinator shall be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall be required to implement reasonable measures to reduce noise levels. All perimeter signs posted at the construction site perimeter shall list the telephone number for the disturbance coordinator.	Less Than Significant Impact.
Threshold NOI-2: Would the project result in generation of excessive ground-borne vibration or ground-borne noise levels? **Less Than Significant with Mitigation Incorporated.** **Construction.** Construction of the proposed project could result in the generation of ground-borne vibration. For typical construction activity, the equipment with the highest vibration generation potential is the large bulldozer, which would generate 0.089 PPV in/sec at 25 feet. The closest surrounding buildings to the project site include existing industrial buildings located approximately 5 feet north of the edge of the project site. The industrial building would experience vibration levels of up to 0.995 in/sec PPV. This vibration level at the nearest building from construction equipment would potentially exceed the FTA threshold of 0.5 in/sec PPV for building damage. At a distance of approximately 8 feet from typical construction activities, vibration levels would approach 0.492 in/sec PPV and would be below the FTA	**Mitigation Measure NOI-1** **Less Than Significant with Mitigation Incorporated.** **Construction Vibration Monitoring Plan.** Due to the close proximity to surrounding structures, the City of Cypress (City) Director of Community Development, or designee, shall verify prior to issuance of demolition or grading permits, that the approved plans require that the construction contractor implement the following mitigation measures during project construction activities in the event that the use of heavy equipment is necessary within 25 feet (ft) of surrounding structures or when deep dynamic	Less Than Significant Impact.

Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
criteria of 0.5 in/sec PPV. While construction could result in vibration damage, impacts would be reduced to less than significant, and the potential for building damage would be eliminated with the incorporation of **Mitigation Measure NOI-1** as detailed below. For DDC construction activities, the proposed drops could occur as close as 50 feet from the nearest structures. The nearest off-site industrial building to the DDC construction activities would experience vibration levels of up to 1.02 in/sec PPV, which would potentially exceed the FTA threshold of 0.5 in/sec PPV for building damage. At a distance of approximately 78 feet from DDC construction activities, vibration levels would be 0.49 in/sec PPV and would be below the FTA criteria of 0.5 in/sec PPV. While construction could result in vibration damage, impacts would be reduced to less than significant, and the potential for building damage would be eliminated with the incorporation of **Mitigation Measure NOI-1** as detailed below.	compaction (DDC) construction activity takes places within 80 ft of surrounding structures: • Notification to nearby businesses detailing the schedule and duration of DDC activities • Structures that are located within 25 ft of heavy construction activities and within 80 ft of DDC construction activity that have the potential to be affected by ground-borne vibration shall be identified. This task shall be conducted by a qualified structural engineer as approved by the City's Director of Community Development, or designee. • The Applicant's construction contractor shall develop a vibration monitoring and construction contingency plan for approval by the City's Director of Community Development, or designee, to identify appropriate locations in the vicinity of nearby structures where monitoring would be conducted; set up a vibration monitoring schedule; define structure-specific maximum vibration limits based on building inspections; contain provisions to conduct photo, elevation, and crack surveys to document before and after construction conditions at those structures. The plan shall identify construction contingencies that would be implemented if vibration levels approach the established vibration limits at a particular location. Potential contingencies may include one or more of the following: o Lowering the height of the compaction weight; o Using a lighter compaction weight; or o Any other alternate method that is safe and appropriate, as determined by the project geotechnical consultant, in consultation with the City's Director of Community Development (such as utilizing geopier stabilization instead of DDC). [4] • At a minimum, vibration during initial site preparation activities at the locations described above shall be monitored. The monitoring results may indicate the need for more or less intensive measurements. • When vibration levels approach the applicable limits established in the vibration monitoring and construction contingency plan, construction shall be suspended and the appropriate mitigation measures identified in the construction contingency plan shall be implemented to reduce vibration levels below thresholds.	
Threshold NOI-3: For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? **Less Than Significant Impact.** The closest airport to the project site is Joint Forces Training Base (JFTB) Los Alamitos, which is located approximately 0.4 mile to the southwest. The noise contour boundaries of JFTB show that the project site is located outside of Noise Impact Zone 2 (60 dB CNEL or greater), therefore, this impact would be less than significant. No mitigation is required.	No mitigation is required.	Less Than Significant Impact.

[4] Utilizing a geopier stabilization system method is estimated to result in vibration levels of 0.22 at approximately 15 feet, which would ensure that vibration from construction within 10 feet remains lower than the threshold of 0.5 in/sec PPV for building damage.

Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
Cumulative Noise Impacts. **Less Than Significant Impact.** As defined in the State CEQA Guidelines, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and reasonably foreseeable probable future projects. A cumulative noise or vibration impact would occur if multiple sources of noise and vibration combine to create impacts in close proximity to a sensitive receptor. Therefore, the cumulative area for noise and vibration impacts is the project site and any sensitive receptors in the immediately surrounding area. ***Construction Noise.*** Construction activities associated with the proposed project and other construction projects in the area may overlap, resulting in construction noise in the area. However, construction noise impacts primarily affect the areas immediately adjacent to each construction site. Construction noise for the proposed project was determined to be less than significant. Cumulative development in the vicinity of the project site could result in elevated construction noise levels at sensitive receptors in the area surrounding the project site. However, each project would be required to comply with the applicable City's Municipal Code limitations on construction. Therefore, cumulative construction noise impacts would be less than significant. ***Operational Traffic Source Noise Impacts.*** According to the USEPA, cumulative noise impacts represent the combined and incremental effects of human activities that accumulate over time. While the incremental impacts may be insignificant by themselves, the combined effect may result in a significant impact. Conversely, although there may be a significant noise increase due to the proposed project in combination with other related projects (combined effects), it must also be demonstrated that the project has an incremental effect. In other words, a significant portion of the noise increase must be due to the proposed project. As stated in Section 4.7, Transportation, the results of the Future Year (2025) Condition (Opening Year With Project) peak-hour level of service (LOS) analysis for the study area intersections show that all study area intersections are forecasted to operate at satisfactory LOS during both peak hours. Project-related traffic for the Opening Year With Project would result in noise level increases between 0.0 to 0.8 dBA CNEL along roadway segments in the vicinity of the project site. These levels are below the significance criteria for off-site traffic noise. Therefore, none of the roadway segments in the vicinity of the project site would experience a substantial noise level increase greater than the applicable noise thresholds, and the proposed project would not have a cumulatively significant traffic noise impact. ***Operational Stationary Source Noise.*** Long-term stationary noise sources associated with the development at the proposed project, combined with other cumulative projects, could cause local noise level increases. Noise levels associated with the proposed project and related projects together could result in higher noise levels than considered separately. As previously described, on-site noise sources associated with the proposed project would not exceed any applicable noise standards. Additionally, each of the related projects would be required to comply with the City's noise level standards and include mitigation measures if standards are exceeded. Therefore, cumulative noise impacts from stationary noise sources would be less than significant.	No mitigation is required.	Less Than Significant Impact.
4.13: Transportation		
Threshold TRA-1: Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities? **Less Than Significant Impact.** The proposed project is anticipated to generate a net increase of 196 two-way trips per day with a net reduction of 28 a.m. peak hour trips and a net reduction of 22 p.m. peak hour trips (in passenger car equivalents [PCE]). Since the proposed project is likely to generate fewer than 50 net new peak-hour trips and fewer than 25 net new peak-hour trips at any single intersection, the implementation of the proposed project is not anticipated to result in any operational or LOS deficiencies; therefore, no further study is necessary. The City's General Plan provides goals and policies to implement a balanced, functional, and efficient circulation system, and incorporate alternative modes of travel which allows for the safe movement of people and goods. General Plan policies CIR-2.5 and CIR-2.8 encourage the development of adequate sidewalks, particularly to provide connections to surrounding alternative modes of transportation. The project site currently provides sidewalks along Plaza Drive and Walker Drive allowing for pedestrian connections to nearby transit. Therefore, the proposed project would not inhibit the use of alternative transportation in the area and would not conflict with circulation policies in the General Plan. Impacts would be less than significant, and no mitigation is required.	No mitigation is required.	Less Than Significant Impact.
Threshold TRA-2: Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)? **Less Than Significant Impact.** The OPR Technical Advisory recommends that a project generating 110 average daily trips (ADT) or less be screened out of a VMT analysis due to the presumption of a less than significant impact. This recommendation is not based on any analysis of GHG reduction but is instead based on the potential trip generation of a project that would be categorically exempt under	No mitigation is required.	Less Than Significant Impact.

Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
CEQA. The proposed project includes the demolition of 150,626 square feet of office space and the construction of a new light industrial building that would be approximately 191,394 square feet in size. The proposed project does not qualify for any of the screening criteria, including the screening threshold for small projects because the proposed project would generate a net increase of 196 ADT and a total of 604 ADT. Therefore, a detailed VMT analysis was prepared. Additionally, the proposed project would constitute a significant impact if the project VMT metric is greater than 85 percent of the regional existing VMT metric. Hence the proposed project would constitute a significant impact if the project VMT per employee is greater than 85 percent of the Orange County VMT per employee (threshold). The project's VMT per employee would be lower than the Orange County regional threshold; therefore, the proposed project would have a less than significant impact related to VMT, and no mitigation measures are required.		
Threshold TRA-3: Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? **Less Than Significant Impact with Mitigation Incorporated.** Vehicular traffic to and from the project site would utilize the existing network of regional and local roadways that serve the project area. Access to the project site would be provided via two driveways at Plaza Drive and Douglas Drive. The proposed project would include the relocation of the existing driveways. The new westernmost driveway would be the primary truck access point and path to the truck loading docks on the proposed building's west side. The eastern driveway would be a shared driveway with the parcel to the east. It is anticipated that Driveway 1 (on Douglas Drive) and Driveway 2 (on Plaza Drive) would be utilized by heavy trucks to access the project site. Driveway 1 is anticipated to be able to accommodate the ingress and egress of heavy trucks as currently designed, providing access to and from the east on Plaza Drive and south on Douglas Drive. Driveway 1 would serve as the primary driveway for heavy trucks accessing the project site. While Driveway 2 would accommodate the ingress and egress of heavy trucks along Plaza Drive, it is recommended that the northwest curb of Driveway 2 be modified to accommodate a 25-foot curb radius for the egress of heavy trucks. Implementation of **Mitigation Measure TRA-1**, described below, would require the installation of on-site traffic signing and striping to direct heavy trucks to the driveway on Douglas Drive. With implementation of **Mitigation Measure TRA-1**, the proposed project would have a less than significant impact related to transportation hazards.	**Mitigation Measure TRA-1** **Truck Access & Routing Plan and Truck Signage and Striping Plan.** The Applicant shall submit a Truck Access and Routing Plan to accommodate the circulation of trucks on site. Additionally, the Applicant shall prepare a Signage and Striping Plan, consistent with the provisions of the California Manual on Uniform Traffic Control Devices (CA MUTCD), that directs heavy trucks to the most appropriate access point. The Public Works Director of the City of Cypress, or designee, shall review and approve the Truck Access and Routing Plan and Signage and Striping Plan and confirm they have been incorporated into the project plans prior to the issuance of a building permit.	Less Than Significant Impact.
Threshold 4.13.4: Would the project result in inadequate emergency access? **Less Than Significant Impact.** Vehicular access to the project site would be provided via two driveways at Plaza Drive and Douglas Drive. Plaza Drive would allow for adequate emergency access and all project improvements, including driveways, would be designed consistent with applicable emergency access standards. All emergency access routes to the proposed project and adjacent areas would be kept cleared and unobstructed during demolition and construction of the proposed project. No roadway closures or lane closures are anticipated as part of project construction. Therefore, the proposed project's effects on emergency access would be less than significant, and no mitigation is required.	No mitigation is required.	Less Than Significant Impact.
Cumulative Transportation Impacts **Less Than Significant Impact.** As defined in the State CEQA Guidelines, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects. Potential cumulative impacts would occur if the proposed project in combination with one or more of the cumulative projects would produce significant impacts to transportation. For purposes of analyzing potential cumulative transportation impacts, the cumulative impact study area is the traffic study area outlined in the TIA. The cumulative projects that were determined to potentially affect one or more of the four study area intersections include: • Cypress Town Center (Multifamily Housing) • The Square (Shopping Center / Multifamily Housing / Hotel / Medical Office Building) • Goodman Commerce Center (High-Cube Warehousing) • 5995 Plaza Drive (General Office) The Future Year 2025 Condition includes the existing baseline traffic conditions, without project traffic conditions, and with project traffic conditions within the study area. Any additional traffic generated by other projects not on the cumulative projects list is likely accounted for through background ambient growth factors that have been applied to the peak hour volumes at study area intersections.	No mitigation is required.	Less Than Significant Impact.

Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
The City of Cypress General Plan Circulation Element identifies LOS D or better as the desired citywide operating standard for most City streets. Traffic associated with the proposed project when combined with the cumulative projects would not exceed LOS D. Accordingly, the proposed project in combination with the cumulative projects would not conflict with circulation policies in the General Plan. Furthermore, like the proposed project, the cumulative projects would be required to comply with applicable programs, plans, ordinances, and policies addressing the circulation system. Accordingly, the proposed project in combination with the cumulative projects would not result in significant cumulative impacts associated with conflicts with these programs, plans, and policies. The proposed project's VMT per employee would be lower than the Orange County regional threshold; therefore, the proposed project would have a less than significant impact related to VMT. Like the proposed project, the cumulative projects would be required to evaluate VMT as part of the environmental review process for those projects. In the event significant VMT impacts were identified, the project would be required to adopt appropriate mitigation to reduce impacts to a less than significant level. Accordingly, the proposed project in combination with the cumulative projects would not result in significant cumulative impacts associated with VMT. The proposed project would result in a less than significant impact with mitigation incorporated in relationship to design hazards. This mitigation would include a truck access and routing plan and truck signage and striping to help accommodate truck access to the proposed project driveways. Similarly, the neighboring Goodman Center Project would also incorporate a truck access and routing plan and truck signage and striping to help accommodate truck access. It is assumed that the other cumulative projects would be designed in a manner consistent with the City's design standards and designs would be subject to review and approval by the City's Public Works Department. Consistency with the City's requirements would prevent implementation of design hazards. Accordingly, the proposed project in combination with the cumulative projects would not result in significant cumulative impacts associated with design hazards. Finally, the proposed project would allow for adequate emergency access via the two planned driveways. Similar to potential design hazards, it is assumed that the cumulative projects would be designed to meet the City's design standards and would be approved by the City prior to implementation. Therefore, the proposed project in combination with the cumulative projects would not result in significant cumulative impacts associated with emergency access.		
4.14: Tribal Cultural Resources		
Threshold TCR-1: Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)? **No Impact.** The project site does not contain any "historical resources" as defined by CEQA. Therefore, the proposed project would not cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the State CEQA Guidelines or PRC 5020.1(k). Native American consultation was conducted in compliance with AB 52. As part of the consultation process, a review of the SLF by the NAHC yielded negative results. Subsequently 21 Native American representatives were contacted by the City to determine their desire to consult on the proposed project. During that process, the Gabrieleño Band of Mission Indians – Kizh Nation (Kizh Nation) stated that the project site is within their tribal territory and requested consultation with the City. The Kizh Nation was provided with a summary of the project and its location. No information regarding specific known tribal cultural resources on the project site was provided by the Kizh Nation. Therefore, the proposed project would not result in any impacts to tribal cultural resources that are listed or eligible for listing in the State or local register of historical resources. No mitigation is required.	No mitigation is required.	No Impact
Threshold TCR-2: Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. **Less Than Significant with Mitigation Incorporated.** The project site is not likely to contain any prehistoric site or archaeological resources based on archival research and field surveys conducted for the project site. There is little potential for the proposed project to impact prehistoric resources due to the low likelihood of resource presence, significant prior disturbance from past grading and development activities on the project site and in the surrounding area. However**, Mitigation Measure CUL-1**, as provided in Section 4.2	Refer to **Mitigation Measure CUL-1** and **Regulatory Compliance Measure CUL-1**, which is provided above in **Threshold CUL-2,** and **CUL-3** under Cultural Resources. **Mitigation Measure TCR-1** **Mitigation Measure TCR-1 Retain a Native American Monitor Prior to Commencement of Ground-Disturbing Activities.** The project Applicant/lead agency shall retain a Native American Monitor from or approved by the Gabrieleño Band of Mission Indians – Kizh Nation (Kizh Nation). The monitor shall be retained prior to the commencement of any "ground-disturbing activity" for the subject project at all project locations (i.e., both on-site and any off-site locations that are included in the project	Less Than Significant Impact.

Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
Cultural Resources of the Draft EIR, has been included to mitigate potentially significant impacts associated with the unlikely discovery of archaeological resources, including tribal cultural resources (TCRs), on the project site. Therefore, implementation of **Mitigation Measure CUL-1** would reduce potentially significant impacts to unknown tribal cultural resources to a less than significant level. During the consultation process, The Kizh Nation provided mitigation measures to address potential impacts related to tribal cultural resources. Implementation of **Mitigation Measures TCR-1 through TCR-3**, which incorporate the recommendations of the Kizh Nation, would reduce any potential impacts to previously undiscovered tribal cultural resources to a less than significant level. Therefore, on this basis and as a result of the City's consultation with the Kizh Nation or any other interested local Native American tribe, the City has concluded that, with implementation of **Mitigation Measures TCR-1 through TCR-3**, potential impacts related to unknown buried tribal cultural resources would also be reduced below a level of significance.	description/definition and/or required in connection with the project, such as public improvement work). "Ground-disturbing activity" shall include, but is not limited to, demolition, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching. A copy of the executed monitoring agreement shall be submitted to the lead agency prior to the earlier of the commencement of any ground-disturbing activity, or the issuance of any permit necessary to commence a ground-disturbing activity. The monitor will complete daily monitoring logs that will provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground- disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs will identify and describe any discovered TCRs, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., (collectively, tribal cultural resources, or "TCR"), as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs will be provided to the project Applicant/lead agency upon written request to the Tribe. On-site tribal monitoring shall conclude upon the latter of the following (1) written confirmation to the Kizh Nation from a designated point of contact for the project Applicant/lead agency that all ground-disturbing activities and phases that may involve ground-disturbing activities on the project site or in connection with the project are complete; or (2) a determination and written notification by the Kizh Nation to the project Applicant/lead agency that no future, planned construction activity and/or development/construction phase at the project site possesses the potential to impact Kizh Nation TCRs. Upon discovery of any TCRs, all construction activities in the immediate vicinity of the discovery shall cease (i.e., not less than the surrounding 50 feet) and shall not resume until the discovered TCR has been fully assessed by the Kizh Nation monitor and/or Kizh Nation archaeologist. The Kizh Nation will recover and retain all discovered TCRs in the form and/or manner the Tribe deems appropriate, in the Tribe's sole discretion, and for any purpose the Tribe deems appropriate, including for educational, cultural and/or historic purposes. **Mitigation Measure TCR-2** **Unanticipated Discovery of Human Remains and Associated Funerary Objects.** Native American human remains are defined in Public Resources Code 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in Public Resources Code Section 5097.98, are also to be treated according to this statute. If Native American human remains and/or grave goods discovered or recognized on the project site, then all construction activities shall immediately cease. Health and Safety Code Section 7050.5 dictates that any discoveries of human skeletal material shall be immediately reported to the County Coroner and all ground-disturbing activities shall immediately halt and shall remain halted until the coroner has determined the nature of the remains. If the coroner recognizes the human remains to be those of a Native American or has reason to believe they are Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission, and Public Resources Code Section 5097.98 shall be followed.	

Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
	Human remains and grave/burial goods shall be treated alike per California Public Resources Code section 5097.98(d)(1) and (2). Construction activities may resume in other parts of the project site at a minimum of 200 feet away from discovered human remains and/or burial goods, if the Kizh Nation determines in its sole discretion that resuming construction activities at that distance is acceptable and provides the project manager express consent of that determination (along with any other mitigation measures the Kizh Nation monitor and/or archaeologist deems necessary). (CEQA Guidelines Section 15064.5(f).) Preservation in place (i.e., avoidance) is the preferred manner of treatment for discovered human remains and/or burial goods. Any historic archaeological material that is not Native American in origin (non-TCR) shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the archaeological material, it shall be offered to a local school or historical society in the area for educational purposes. Any discovery of human remains/burial goods shall be kept confidential to prevent further disturbance. **Mitigation Measure TCR-3** **Procedures for Burials and Funerary Remains.** As the Most Likely Descendant ("MLD"), the Koo-nas-gna Burial Policy shall be implemented. To the Tribe, the term "human remains" encompasses more than human bones. In ancient as well as historic times, Tribal Traditions included, but were not limited to, the preparation of the soil for burial, the burial of funerary objects with the deceased, and the ceremonial burning of human remains. If the discovery of human remains includes four or more burials, the discovery location shall be treated as a cemetery and a separate treatment plan shall be created. The prepared soil and cremation soils are to be treated in the same manner as bone fragments that remain intact. Associated funerary objects are objects that, as part of the death rite or ceremony of a culture, are reasonably believed to have been placed with individual human remains either at the time of death or later; other items made exclusively for burial purposes or to contain human remains can also be considered as associated funerary objects. Cremations will either be removed in bulk or by means as necessary to ensure complete recovery of all sacred materials. In the case where discovered human remains cannot be fully documented and recovered on the same day, the remains will be covered with muslin cloth and a steel plate that can be moved by heavy equipment placed over the excavation opening to protect the remains. If this type of steel plate is not available, a 24-hour guard should be posted outside of working hours. The Tribe will make every effort to recommend diverting the project and keeping the remains in situ and protected. If the project cannot be diverted, it may be determined that burials will be removed. In the event preservation in place is not possible despite good faith efforts by the project Applicant/developer and/or landowner, before ground-disturbing activities may resume on the project site, the landowner shall arrange a designated site location within the footprint of the project for the respectful reburial of the human remains and/or ceremonial objects.	

Table 1.1: Summary of Potential Environmental Impacts, Project Design Features, Mitigation Measures, Compliance Measure, and Level of Significance

Potential Environmental Impact	Project Design Features, Mitigation Measures, and Compliance Measures	Level of Significance After Mitigation
	Each occurrence of human remains and associated funerary objects will be stored using opaque cloth bags. All human remains, funerary objects, sacred objects and objects of cultural patrimony will be removed to a secure container on site if possible. These items should be retained and reburied within six months of recovery. The site of reburial/repatriation shall be on the project site but at a location agreed upon between the Tribe and the landowner at a site to be protected in perpetuity. There shall be no publicity regarding any cultural materials recovered. The Tribe will work closely with the project's qualified archaeologist to ensure that the excavation is treated carefully, ethically and respectfully. If data recovery is approved by the Tribe, documentation shall be prepared and shall include (at a minimum) detailed descriptive notes and sketches. All data recovery data recovery-related forms of documentation shall be approved in advance by the Tribe. If any data recovery is performed, once complete, a final report shall be submitted to the Tribe and the NAHC. The Tribe does NOT authorize any scientific study or the utilization of any invasive and/or destructive diagnostics on human remains.	
Cumulative Tribal Cultural Resources Impacts. **Less Than Significant Impact with Mitigation Incorporated.** The proposed project would result in less than significant impacts to known and unknown tribal cultural resources listed or eligible for listing in the California Register, in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or otherwise determined by the lead agency to be significant. Further, each individual development proposal received by the City that requires discretionary approval is required to undergo individual environmental review pursuant to CEQA. AB 52 outreach would be required for those discretionary projects for which a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report is prepared. Furthermore, impacts of other projects on tribal cultural resources are generally site-specific resulting from ground-disturbing activities, which would require unique impact analysis to determine the nature and extent of the resources and identify appropriate mitigation measures that would reduce or avoid significant impacts. Thus, there is no potential for the project to contribute towards a significant cumulative impact associated with the significance of a tribal cultural resource pursuant to California Code of Regulations Section 15064.5. Additionally, when resources can be assessed and/or protected as they are discovered, impacts to these resources are less than significant. As such, implementation of **Mitigation Measures TCR-1 through TCR-3** would ensure that the proposed project, together with the related projects, would not result in significant cumulative impacts to tribal cultural resources.	See Mitigation Measure **TCR-1 through TCR-3** under **Threshold TCR-2** above.	Less Than Significant Impact with Mitigation Incorporated.

2.0 INTRODUCTION

This Draft Environmental Impact Report (EIR) has been prepared to evaluate environmental impacts associated with the proposed 5665 Plaza Drive Project (proposed project) in Cypress, California. The proposed project would include the demolition of an existing 150,626-square-foot, five-story office building and the construction of a new 191,394-square-foot light industrial building. The proposed building would include 181,061 square feet of warehouse space and 10,333 square feet of office space. The maximum height of the proposed building would be approximately 51 feet, 6 inches, to the top of the parapet. The proposed project would include a truck loading area with 25 dock-high loading doors on the west side of the proposed building. The project site is currently accessible from two driveways along Plaza Drive which will be relocated as part of the project. The new westernmost driveway would be the primary truck access point and path to the truck-loading docks on the proposed building's west side. The eastern driveway would be a shared driveway with the parcel to the east. The proposed project would include parking stalls throughout the project site's perimeter, new water and sewer lines connecting with existing water and sewer mains within Plaza Drive, new stormwater infrastructure, and new ornamental landscaping.

The City of Cypress (City) is the "public agency which has the principal responsibility for carrying out or approving the project"[5] and, as such, is the "Lead Agency" for purposes of preparing an EIR for the proposed project under the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 *et seq*.). CEQA requires the Lead Agency to consider the information contained in the EIR prior to taking any discretionary action on the proposed project. This EIR is intended to serve as an informational document to be considered by the City and any Responsible Agencies during deliberations on the proposed project. CEQA Section 21069 defines a "Responsible Agency" as a public agency other than the Lead Agency that has responsibility for carrying out or approving a project. The approvals and permits associated with the proposed project are detailed further in Chapter 3.0, Project Description.

The City, as Lead Agency, determined that the proposed project may have a significant effect on the environment and that an EIR would be required to more fully evaluate potential adverse environmental impacts that may result from development of the proposed project. As a result, this EIR has been prepared in accordance with CEQA and the State CEQA Guidelines (California Code of Regulations [CCR], Title 14, Section 15000 et seq.). This EIR also complies with the procedures established by the City for the implementation of CEQA.

2.1 PURPOSE AND USES OF THE EIR

This EIR has been prepared to evaluate potential environmental impacts that could result from implementation of the proposed project. As the Lead Agency, the City has the principal responsibility for approving the proposed project. In that capacity, the City has decided to prepare this EIR and, after the public review process, will decide whether to certify the Final EIR.

[5] As defined in Public Resources Code Section 21067.

The City and any Responsible Agencies have the authority to make decisions on discretionary actions relating to development of the proposed project. As stated previously, this EIR is intended to serve as an informational document to be considered by the City and Responsible Agencies during deliberations on the proposed project. This EIR evaluates a reasonable worst-case scenario of potential impacts associated with the proposed project and identifies feasible mitigation and alternatives for any identified potentially significant impacts.

This EIR will serve as a project EIR pursuant to State CEQA Guidelines Section 15161. According to Section 15161 of the State CEQA Guidelines, a project EIR is appropriate for specific development projects and should examine the environmental impacts that could result from all phases of the project, including planning, construction, and operation.

As the Lead Agency for the proposed project under CEQA, the City must consider the information contained in the Final EIR prior to taking any discretionary action with respect to the proposed project. This EIR provides information to the Lead Agency and other public agencies, the general public, and decision-makers regarding the potential environmental impacts from construction and operation of the proposed project. The purpose of the public review of this EIR is to evaluate the adequacy of the environmental analysis in terms of compliance with CEQA. State CEQA Guidelines Section 15151 states the following regarding the standards from which adequacy is judged:

> "An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among experts. The courts have not looked for perfection but for adequacy, completeness, and a good faith effort at full disclosure."

Public Resources Code Section 21002.1(a) states:

> "The purpose of an environmental impact report is to identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided."

An EIR is the most comprehensive form of environmental documentation identified in CEQA and the State CEQA Guidelines and provides the information needed to assess the environmental consequences of a proposed project. EIRs are intended to provide an objective, factually supported, full-disclosure analysis of the environmental consequences associated with a proposed project that has the potential to result in significant, adverse environmental impacts.

2.2 ENVIRONMENTAL REVIEW PROCESS

In compliance with CEQA and the State CEQA Guidelines, the City has taken steps to promote opportunities for the public and other public agencies to participate in the environmental review process. An Initial Study (IS) was completed for the proposed project and the City initially determined that a Mitigated Negative Declaration (MND) would be prepared. However, based on

comments received from the public, the City decided that an EIR would be prepared to evaluate the potentially significant environmental effects of the proposed project and related actions. Preparation of an EIR required the City to engage in public scoping for the project. To conduct public scoping, the City issued a Notice of Preparation (NOP) of an EIR and held a public scoping meeting. The scoping process is further discussed below.

2.2.1 Notice of Preparation/Scoping Meeting

On May 7, 2024, an NOP for the EIR was posted to the City's website and distributed by the City via the State Clearinghouse (SCH). The NOP was circulated for review from May 7 to June 5, 2024. The SCH number for this EIR is SCH No. 2020069007. In accordance with State CEQA Guidelines Section 15082, the NOP was circulated to public agencies and interested individuals and was posted at the Orange County Clerk-Recorder's Office for a period of 30 days. A full list of the agencies and individuals contacted is presented in **Appendix A** of this EIR, Public Involvement. During the 30-day public scoping period, written comments were solicited pertaining to environmental issues/topics that this EIR should evaluate. The City held a virtual public scoping meeting on Tuesday, May 28, 2024, to present the proposed project and to solicit input from interested parties. One public comment was received during the Scoping Meeting.

Responses to the NOP were received from the following agencies:

- City of Los Alamitos
- Native American Heritage Commission (NAHC)

In addition, the following organizations and interested parties submitted written comments on the NOP:

- Allyssa J. Holcomb (on behalf of Warland Investments Company)

2.2.2 Issues Raised

Issues and concerns raised in response to the NOP or at the scoping meeting included:

Allyssa J. Holcomb, Garrett Stiepel Ryder, LLP, on behalf of Warland Investments Company

- **Air Quality**: Concern related to excessive air pollution due to the proposed project's foreseeable use as a logistics center. Concern that the proposed project failed to address the impact of refrigerated trucks on air quality and did not evaluate the air quality impact of off-site effects, such as vehicle and truck trips. Concerns regarding the short and long-term impacts to air quality in surrounding areas due to the proposed cumulative redevelopment of 5665 Plaza Drive. Stated that the proposed project does not consider the air quality impacts of refrigerated trucks accessing the project site and also fails to evaluate off-site air quality impacts.

- **Greenhouse Gas Emissions:** Concern that the proposed project would exceed the SCAQMD threshold and concerned that the analysis also fails to clearly evaluate the effects of off-site Greenhouse gas emissions. Concerns related to the failure to meet "Less than Significant" emissions by exceeding the 3,000 MT CO2e per year SCAQMD threshold and the failure to evaluate the effects of off-site GHG emissions.

- **Land Use:** Suggestion that the City should not only limit the scope of the EIR to current permitted uses.

- **Noise:** Concern related to increased noise generation due to the proposed project's foreseeable use as a logistics center

- **Traffic:** Concern related to increased traffic congestion due to the proposed project's foreseeable use as a logistics center. Concern related to the Truck Distribution Map in the Traffic Analysis for the proposed project. It was stated that the analysis failed to account for truck traffic from the entire Goodman Commerce Center (the 5665 Plaza Drive Project and the Goodman Commerce Center Project). It was stated that the proposed project made the incorrect assumption that 100 percent of truck traffic would exit via Driveway 1 and omitted detailed projections for truck routes, especially regarding the impact on nearby residential areas. Concern that the Traffic Analysis inaccurately estimated daily truck trips by solely evaluating the 5665 Redevelopment, rather than considering the entire Goodman Commerce Center as a logistics hub, leading to a significant underestimation of truck traffic impacts.

City of Los Alamitos

- **Air Quality**: Suggestion that the Draft EIR include an evaluation of the proposed project's impact on air quality due to the proposed change in land use.

- **Greenhouse Gas Emissions**: Suggestion that the Draft EIR include an evaluation of the proposed project's impact on Greenhouse Gas Emissions due to the proposed change in land use.

- **Noise**: Suggestion that the proposed project include an evaluation of the project's noise impact due to the change in land use, proximity to sensitive receptors, and maximum noise levels indicated in any applicable General Plans, including the City of Los Alamitos General Plan.

- **Traffic**: Suggestion that the Draft EIR include the existing truck routes, the project's impact to and along the truck routes, and any impacts or needs to modify truck routes. Suggestion that the proposed project should provide a traffic and/or access analyses that evaluates the daily truck trips and their distribution and influence on Los Alamitos roadways.

NAHC

- **Tribal Cultural Resources**: Outlined the City's tribal consultation requirements under Assembly Bill 52 and Senate Bill 18

This is not an exhaustive list of areas of controversy, but rather key issues that were raised during the scoping process. Section 15064(e) of the State CEQA Guidelines states, "economic and social changes resulting from the project shall not be treated as significant effects on the environment." Therefore, economic issues are not addressed under CEQA and will not be address in this EIR. This EIR addresses each of the remaining areas of concern or controversy in detail, examines project-related and cumulative environmental impacts, identifies significant adverse environmental impacts, and proposes mitigation measures and/or alternatives designed to reduce or eliminate potentially

significant impacts. **Appendix A** includes the NOP and copies of written comments received in response to the NOP. **Appendix A** also includes a comment summary.

2.2.3 EIR Public Review Period

This EIR is being distributed to numerous public agencies and other interested parties for review and comment. This EIR is also available on the City's website:

> https://www.cypressca.org/departments/community-development/information-on-notable-projects/goodman-commerce-center-5665-plaza-drive

Additionally, a copy of this EIR will be available for public review at the Planning Division counter at Cypress City Hall located at 5275 Orange Avenue, Cypress, CA 90630.

All comments received from agencies and individuals on this EIR will be accepted during the public comment period, which will not be less than 45 days, in compliance with CEQA and *the* State CEQA Guidelines.

All comments on this EIR should be sent to the following City contact person:

> Alicia Velasco
> Planning Director
> City of Cypress
> Community Development Department
> 5275 Orange Avenue
> Cypress, CA 90630
> Email: avelasco@cypressca.org

Following the close of the public comment period, the City will prepare written responses to all written comments received during the public comment period and will compile these comments and responses, together with any text changes to this EIR, into a Final EIR that includes all of the information required pursuant to State CEQA Guidelines Section 15132. The Final EIR will be provided to all public agencies that submitted comments on this EIR at least 10 days prior to certification of the Final EIR. The Final EIR shall consist of the EIR or a revision of the draft; comments, and recommendations received on the EIR either verbatim or in summary; a list of persons, organizations, and public agencies commenting on the EIR; the response of the City to significant environmental points raised in the review and consultation process and in comments submitted on the Draft EIR; and any other information added by the City.

The City will make findings regarding the extent and nature of the impacts as presented in the Final EIR. The Final EIR must be certified as complete by the City Council prior to making a decision on the requested entitlements for the proposed project. Public input is encouraged at all public hearings regarding the proposed project.

2.3 SCOPE OF THIS EIR

As required by State CEQA Guidelines Section 15128, this EIR must identify the effects of the proposed project that are determined to be significant. The IS for the proposed project identified

impacts associated with Aesthetics, Agricultural/Forestry Resources, Biological Resources, Hazards & Hazardous Materials, Hydrology/Water Quality, Land Use/Planning, Mineral Resources, Population/ Housing, Public Services, Recreation, Utilities/Service Systems, and Wildfire would all be less than significant. Accordingly, the environmental topics addressed in this EIR include Air Quality, Cultural Resources, Energy, Geology and Soils, Greenhouse Gas Emissions, Noise, Transportation, and Tribal Cultural Resources.

2.4 FORMAT OF THE EIR

This EIR contains the information and analysis required by CEQA and the State CEQA Guidelines, including Sections 15122–15131, and is generally organized as follows:

- **Chapter 1.0: Executive Summary.** Chapter 1.0 contains the Executive Summary of this EIR, which lists all significant project impacts, feasible mitigation measures that have been recommended to reduce any significant impacts of the proposed project, and the level of significance of each impact following feasible mitigation. The summary is presented in a table format.

- **Chapter 2.0: Introduction.** Chapter 2.0 contains a discussion of the purpose and intended use of this EIR.

- **Chapter 3.0: Project Description.** Chapter 3.0 includes a discussion of the proposed project's geographical setting, the project site's previous uses, and the proposed project's objectives, characteristics, components, and construction phases, as well as the anticipated discretionary and ministerial permits and approvals for the proposed project.

- **Chapter 4.0: Environmental Impact Analysis.** Chapter 4.0 includes an analysis of the proposed project's environmental impacts. It is organized into the following topical sections: Air Quality, Cultural Resources, Energy, Geology and Soils, Greenhouse Gas Emissions, Noise, Transportation, and Tribal Cultural Resources. The environmental setting discussions describe the "existing conditions" of the environment on the project site and in the vicinity of the site as they pertain to the environmental issues being analyzed (State CEQA Guidelines Section 15125).

  The impact discussions identify and focus on the potentially significant environmental effects of the proposed project. The direct and indirect effects of the proposed project on the environment are identified and described, giving due consideration to both the short-term and long-term effects, as necessary (State CEQA Guidelines Section 15126.2[a]).

  Chapter 4.0 also includes within the analysis of each environmental topic a discussion of the cumulative effects of the proposed project when considered in combination with other projects causing related impacts, as required by State CEQA Guidelines Section 15130. Cumulative impacts are based on the build out of the proposed project and the known relevant approved and proposed projects in the surrounding area.

  The discussions of mitigation measures identify and describe feasible measures that could minimize or lessen potentially significant impacts for each significant environmental effect identified in this EIR (State CEQA Guidelines Section 15126[e]). The levels of significance before

and after mitigation are provided. Significant unavoidable adverse effects are identified where mitigation is not expected to reduce the effects to less than significant levels.

- **Chapter 5.0: Alternatives to the Proposed Project.** In accordance with CEQA, the alternatives discussion in Chapter 5.0 describes a reasonable range of alternatives that could feasibly attain the basic objectives of the proposed project and are capable of eliminating or substantially reducing any of the proposed project's significant adverse environmental effects or reducing them to a less than significant level. The alternatives analyzed in Chapter 5.0 include four alternatives: (1) the No Project Alternative, (2) the Reduced Footprint Alternative, (3) the No Refrigeration Warehouse Alternative, and (4) the Modified Geotechnical Approach Alternative.

- **Chapter 6.0: Other CEQA Considerations.** Chapter 6.0 contains discussions on the following topics as required by State CEQA Guidelines Section 15126: (1) growth-inducing impacts of the proposed project; and (2) whether there are any significant irreversible environmental changes caused by the proposed project, adverse environmental impacts associated with the proposed project for which either no mitigation or only partial mitigation is feasible.

- **Chapter 7.0: Mitigation Monitoring and Reporting Program.** State CEQA Guidelines Section 15091(d) requires that public agencies adopt a mitigation monitoring and reporting program for any changes that it has either required in a project or made a condition of approval to avoid or substantially lessen significant environmental effects. Chapter 7.0 provides a list of all proposed project mitigation measures, defines the parties responsible for implementation and review, and identifies the timing for implementation of each mitigation measure.

- **Chapter 8.0: Significant Unavoidable Impacts.** Chapter 8.0 summarizes the significant unavoidable adverse impacts that cannot be avoided or mitigated as identified in Chapters 4.0 and 6.0.

- **Chapter 9.0: List of Preparers.** Chapter 9.0 provides the organizations and persons contacted during preparation of this EIR, the EIR preparers and technical report authors, and other experts involved in the preparation of this EIR.

- **Chapter 10.0: References.** Chapter 10.0 provides the references used in this EIR.

2.5 INCORPORATION BY REFERENCE

An EIR may incorporate by reference all or portions of another document that is a matter of public record or is generally available to the public, consistent with State CEQA Guidelines Section 15150. Informational details from the documents that have been incorporated by reference are summarized in the appropriate sections of this EIR, along with descriptions regarding how the public may review these documents. All documents are available for review at the City of Cypress, Community Development Department. These documents include:

- City of Cypress General Plan (available online at: https://www.cypressca.org/government/departments/community-development/planning-division/city-plans)

- City of Cypress Municipal Code (available online at: https://qcode.us/codes/cypress/)
- McDonnell Center Amended Specific Plan (available online at: https://www.cypressca.org/home/showpublisheddocument/9697/637363718993530000)

3.0 PROJECT DESCRIPTION

This chapter of the EIR describes the proposed 5665 Plaza Drive Project (proposed project), including the project overview and a description of the proposed project's location, objectives, and the approvals required for project implementation.

3.1 PROJECT APPLICANT

GLC Cypress LLC
c/o Goodman North America Management
3333 Michelson, Suite 1050
Irvine, CA 92612
Project Representative: Blair Dahl

3.2 LEAD AGENCY CONTACT PERSON

Consistent with State CEQA Guidelines Section 15050, the City of Cypress is the Lead Agency under CEQA and is responsible for adoption of the EIR and approval of the proposed project.

Alicia Velasco
Planning Director City of Cypress
5275 Orange Avenue
Cypress, CA 90630
Phone: (714) 229-6720
Email: avelasco@cypressca.org

3.3 PROJECT OVERVIEW

Goodman (the Project Applicant) proposes to demolish an existing 150,626-square-foot five-story office building on an 8.53-acre site at 5665 Plaza Drive (project site) in the city of Cypress and construct a new 191,394-square-foot light industrial building, with associated office space, landscaping, surface parking, and utility improvements.

3.4 PROJECT LOCATION AND SITE DESCRIPTION

3.4.1 Regional Location

The project site is in the southern part of the city of Cypress at 5665 Plaza Drive, north of the intersection of Plaza Drive and Douglas Drive. The city of Cypress is located in northwestern Orange County, California, approximately 20 miles southeast of downtown Los Angeles. The project site is approximately 3.5 miles south of State Route 91 (SR-91), approximately 4.75 miles southwest of Interstate 5 (I-5), approximately 2.75 miles east of Interstate 605 (I-605), and approximately 2.2 miles north of State Route 22 (SR-22). Local access to the project site is provided via Plaza Drive. **Figure 3.1, Regional and Project Site Location**, shows the location of the project site within Cypress and northwestern Orange County.

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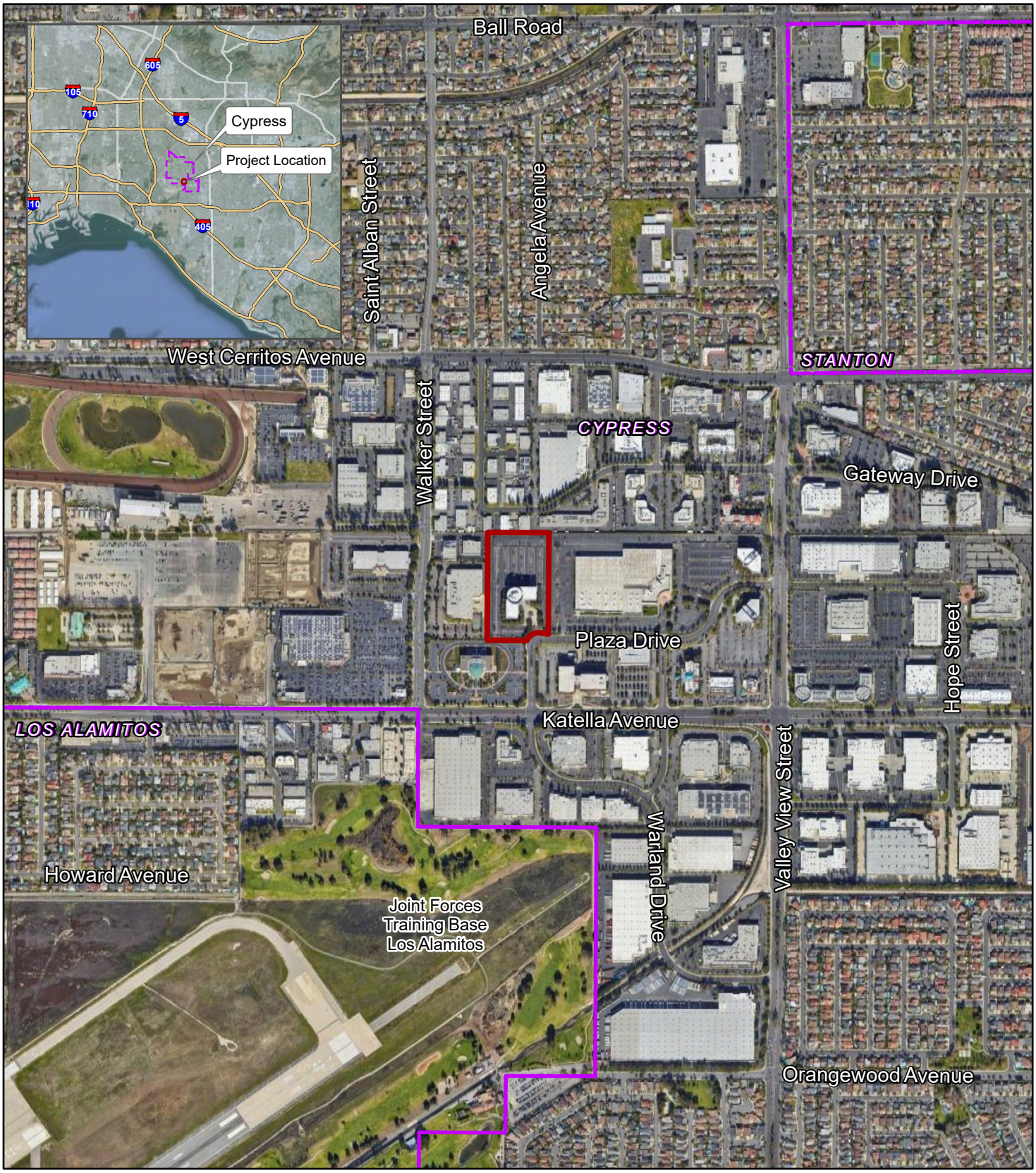

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FIGURE 3.1

SOURCE: Google Maps (2023)

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5665 Plaza Drive Project Draft Environmental Impact Report

Regional and Project Site Location

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3.4.2 Existing Project Site Conditions

The project site is currently developed with a 150,626-square-foot, five-story, office building, a surface parking lot, and ornamental landscaping. As of May 2024, the existing office building was vacant and had no tenants. However, the existing office building has historically been occupied. The current vacancy of the existing office building is not consistent with historic on-site operations, which may be re-established under existing regulations. In August 2023, 61,756 square feet (approximately 41 percent) of the existing 150,626 square foot building was leased and occupied by Toyo Tire and an accounting firm. To be conservative, the analysis in this EIR assumes a baseline condition of 37,657 square feet or 25 percent occupancy. This conservative estimate is lower than the historic occupancy levels, as reflected by the previous tenant conditions in August 2023.

The project site is bounded by industrial and office uses to the north, industrial uses to the west, Plaza Drive to the south, and the Goodman Commerce Center Project to the east. The Goodman Commerce Center Project, approved in April 2023, was under construction at the time of the preparation of this EIR. The Goodman Commerce Center Project consists of two light industrial buildings totaling 390,268 square feet. **Figure 3.2, Aerial Photograph and Surrounding Land Uses,** depicts the project site in a local setting.

3.5 GENERAL PLAN, SPECIFIC PLAN, AND ZONING

3.5.1 General Plan/Specific Plan

The City of Cypress General Plan Land Use Policy Map designates the project site as "Specific Plan Area." **Figure 3.3, General Plan Land Use in the Project Area,** depicts General Plan land uses at the project site and in the surrounding areas. The project site is in the McDonnell Center Amended Specific Plan (Specific Plan) area, shown in **Figure 3.4, McDonnell Center Specific Plan Area**. The McDonnell Center Amended Specific Plan covers approximately 71 acres in the southeastern portion of the City. The project site is within Planning Area 1 of the Specific Plan area and is currently designated for general office uses.

3.5.2 Current Zoning

Figure 3.5, Existing Zoning Map, depicts zoning for the City. The project site is located in a PC (Planned Community) zoning district. The City's zoning ordinance describes PC zoning districts as being:

> …established to provide opportunity for the design and development of integrated, master-planned projects in areas of the city which may benefit from special design standards and land uses not otherwise possible under conventional zoning district regulations. The PC zoning district is intended to permit a compatible mix of land uses, planned commercial developments, and business parks, and a variety of housing styles and densities. The PC zoning district is consistent with all residential and business park land use designations of the general plan. Each PC zoning district established shall be indicated by a unique zoning district designation.[6]

[6] City of Cypress Municipal Code, Section 2.08.020(C), PC (Planned Community) Zoning District. Website: https://ecode360.com/43174998 (accessed May 10, 2024).

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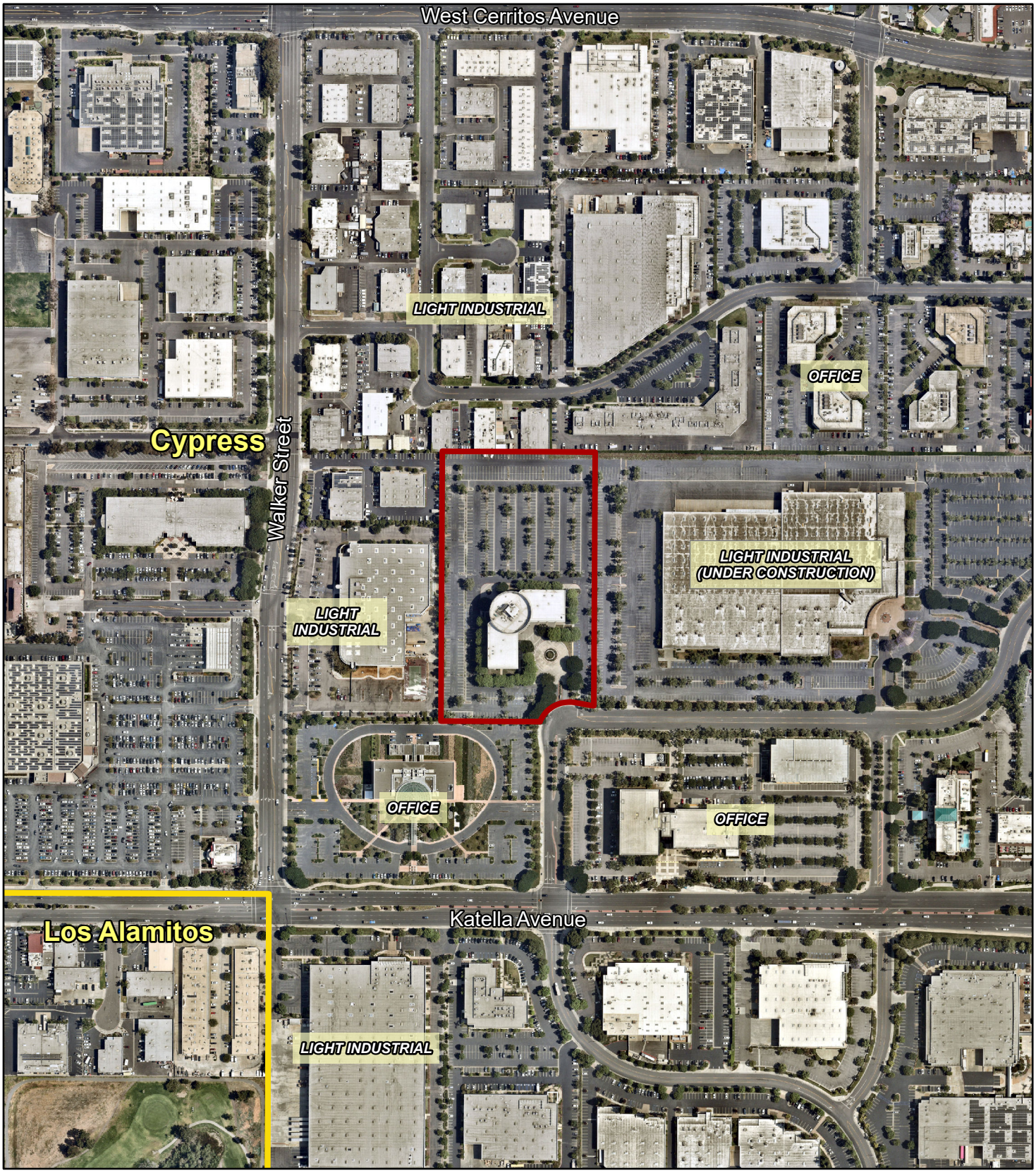

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Project Site

City Boundary

FIGURE 3.2

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SOURCE: Nearmap (June 17, 2023)

5665 Plaza Drive Project Draft Environmental Impact Report

Aerial Photograph and Surrounding Land Uses

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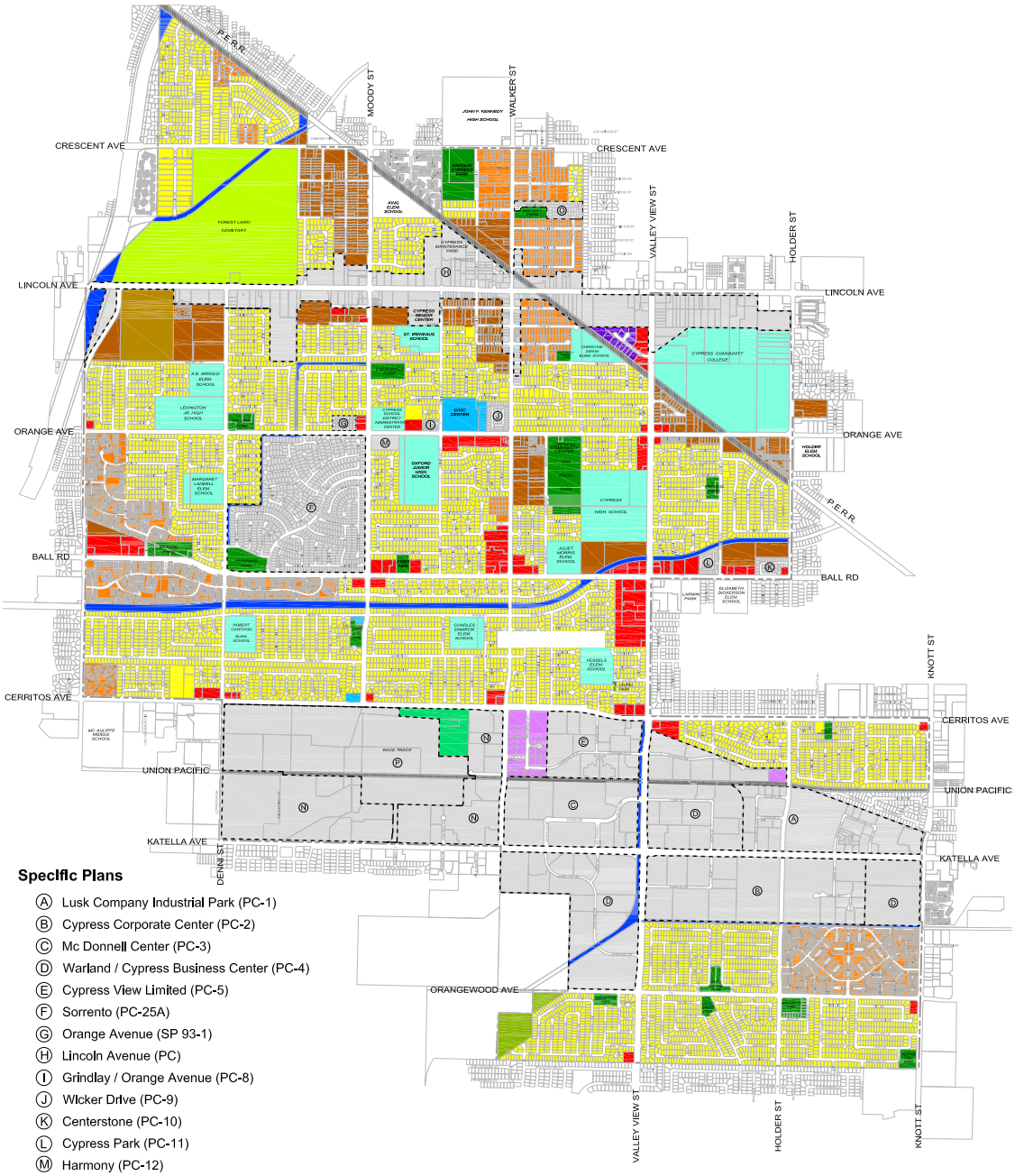

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FIGURE 3.3

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NOT TO SCALE

SOURCE: City of Cypress

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5665 Plaza Drive Project Draft Environmental Impact Report

General Plan Land Use in the Project Area

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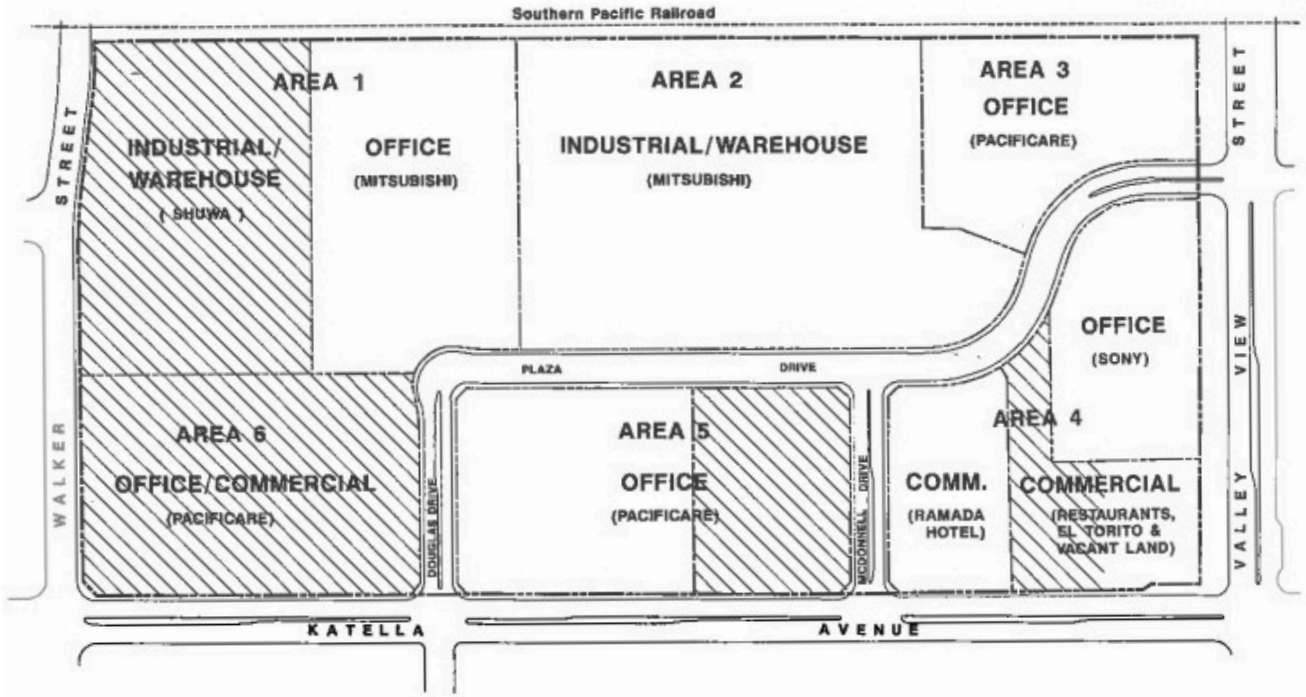

Area	Net Acres	Existing SF	Proposed SF	Ultimate Total
1	16.14	151,000	210,000	361,000
2	15.32	338,653	0	338,653
3	5.02	106,866	0	106,866
4	10.54	219,816	9,000	228,816
5	9.18	206,895	150,000	356,895
6	8.47	0	368,000*	368,000*
Total (net)	64.67	1,023,230	737,000	1,760,230
Roads	6.56			
Total (gross)	71.23	1,023,230	737,000	1,760,230

* Includes 10,000 square foot child care facility

Approved Specific Plan (1982)	1,554,100 square feet
Proposed Specific Plan Amendment	1,760,230 square feet
Increase	206,130 square feet

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FIGURE 3.4

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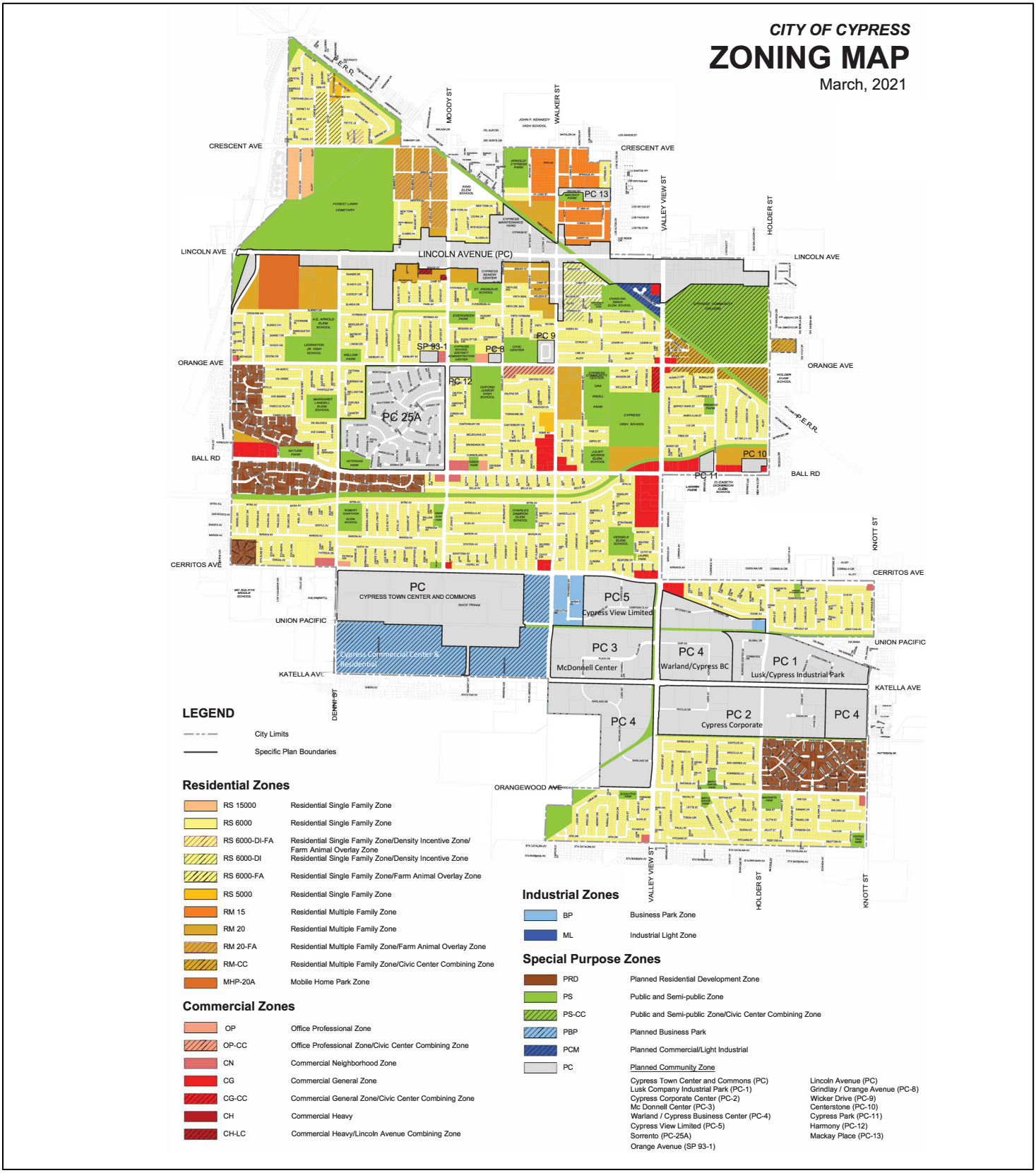

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FIGURE 3.5

NOT TO SCALE

SOURCE: City of Cypress

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5665 Plaza Drive Project Draft Environmental Impact Report

Existing Zoning Map

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With the exception of certain uses, the zoning ordinance defers to the specific plan in identifying permissible and conditionally permissible uses. The project site is in the PC-3, McDonnell Center Planned Community Zone, and applicable zoning is provided in the McDonnell Center Amended Specific Plan. The McDonnell Specific Plan Area is divided into six planning areas that are designated for industrial/warehouse, office, or commercial uses. The McDonnell Specific Plan also constitutes the zoning for the project site. In its existing condition Planning Area 1 currently includes light industrial uses in the western portion of the planning area and office uses in the eastern portion of the planning area. The project site is within the eastern portion of Planning Area 1 and is currently designated for general office uses. The proposed project would not include or require any amendments to the City's General Plan or City's Zoning Ordinance; however, the project does include a proposed amendment to the McDonnell Specific Plan to allow light industrial uses within the eastern portion of Planning Area 1, and removal of the maximum developable area requirement while retaining the 1.0:1 FAR to maintain consistency with the General Plan. Office uses would still be allowed within the eastern portion of Planning Area 1.

3.6 PROJECT CHARACTERISTICS

3.6.1 Project Objectives

The City has established the following intended specific objectives for the proposed project that would serve to aid decision-makers in their review of the proposed project and its associated environmental impacts:

1. To meet a greater market demand for state-of-the-art light industrial buildings by replacing a vacant office building.
2. To promote development that will attract new businesses to operate in the City.
3. To encourage business development that will generate a range of employment opportunities for the community.
4. To help attract new business enterprises that will result in a positive flow of revenue to the City.
5. To establish a use consistent with the business park and light industrial uses in proximity to the project site.

3.6.2 Project Characteristics

The proposed project includes the demolition of the existing five-story office building on the project site and the construction of a concrete tilt-up light industrial building with associated office and warehouse uses, inclusive of a second-story office mezzanine and attendant loading docks. The proposed building would be 191,394 square feet in size, and the project includes associated site improvements such as landscaping, surface parking, and utility improvements.

3.6.3 Site Design/Layout

The proposed project would include one new light industrial building with a truck loading area on the west side and surface automobile parking along the remaining sides of the proposed building. **Figure 3.6, Conceptual Site Plan**, shows the conceptual site plan for the proposed project. The proposed building is depicted in **Figure 3.7, Proposed Project Renderings**, and **Figure 3.8, Proposed Building Finishes**, presents the finishes for the proposed building.

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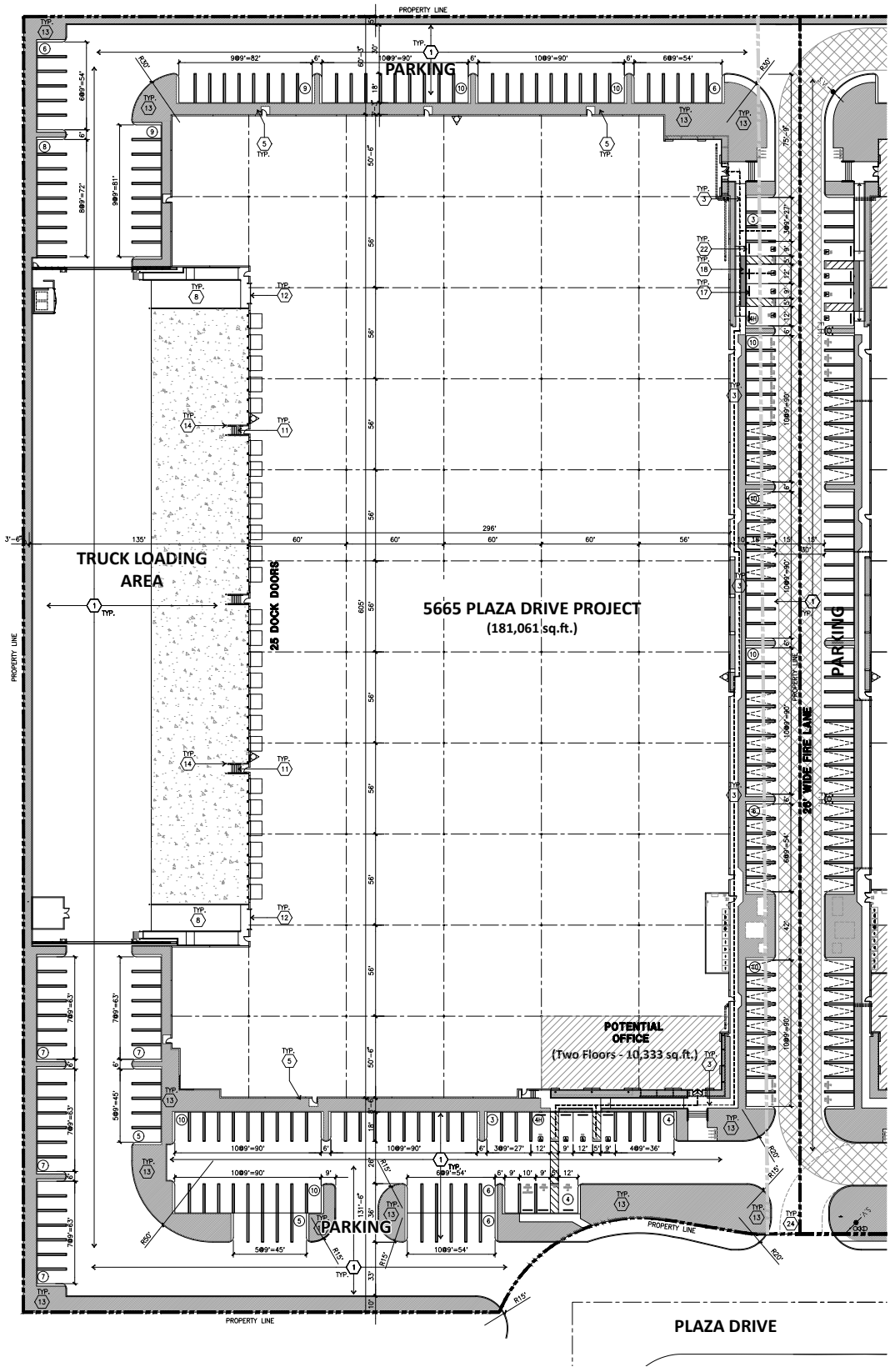

FIGURE 3.6

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SOURCE: HPA

SITE PLAN GENERAL NOTES

- CONCRETE PAVING – RE: CIVIL DRAWINGS THICKNESS
- STANDARD PARKING STALL 9' X 18'
- ACCESSIBLE PARKING STALL, 9'X18+5'W ACCESSIBLE AISLE
- VAN ACCESSIBLE 12'X18'+5'W ACCESSIBLE AISLE
- EV PARKING
- CLEAN AIR/VANPOOL/EV (PROVIDE CONDUIT FOR FUTURE EV CHARGING) STALL (9' X 18')
- EV AMBULATORY PARKING STALL (10' X 18')
- LIGHT STANDARD
- 26' WIDE FIRE LANE. PROVIDE RED CURBS AND SIGNAGE PER FIRE DEPT REQUIREMENT
- FIRE HYDRANT– APPROXIMATE LOCATION
- PROPERTY BOUNDARY

5665 Plaza Drive Project Draft Environmental Impact Report

Conceptual Site Plan

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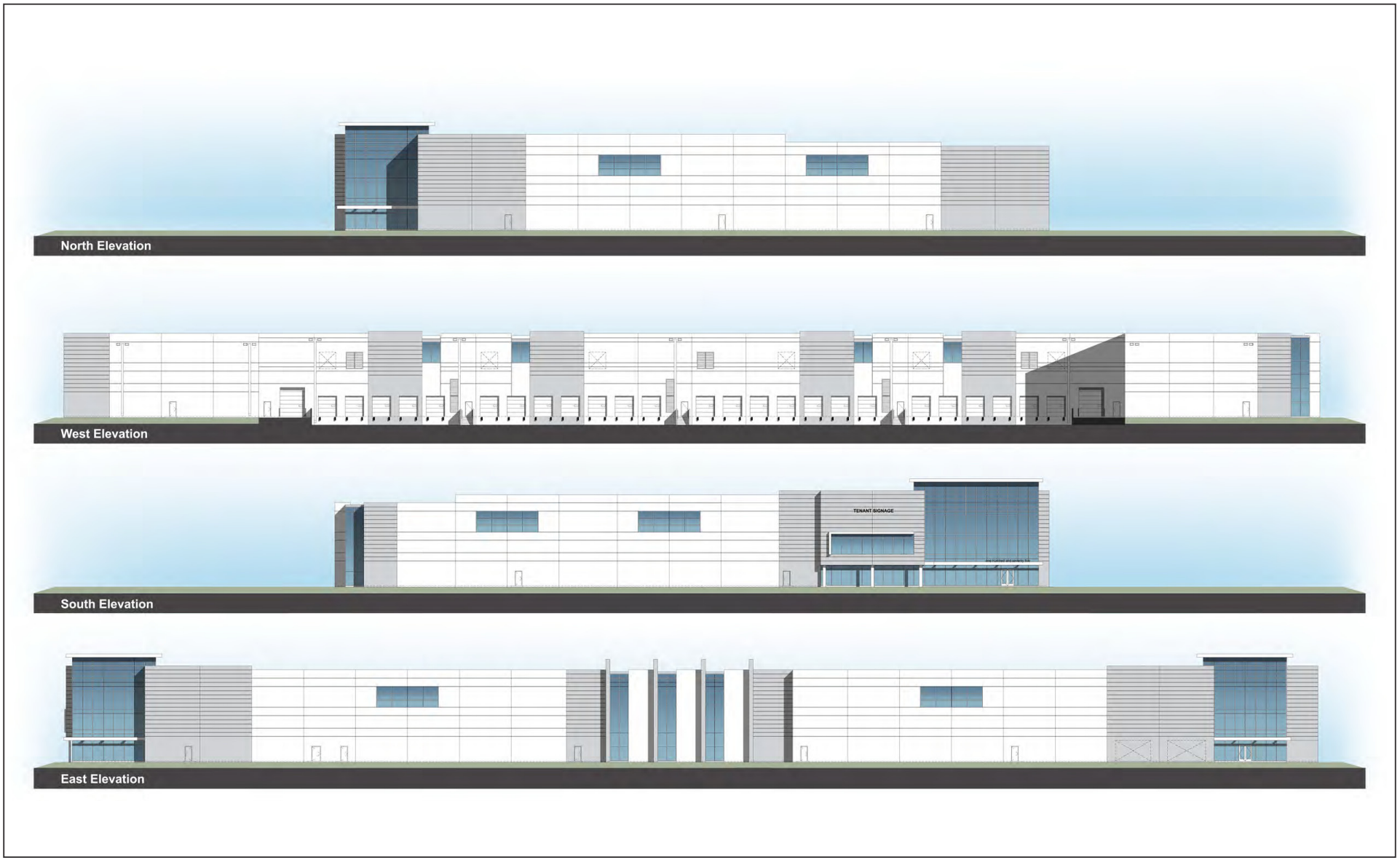

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FIGURE 3.7

5665 Plaza Drive Project Draft Environmental Impact Report

Proposed Project Renderings

SOURCE: HPA

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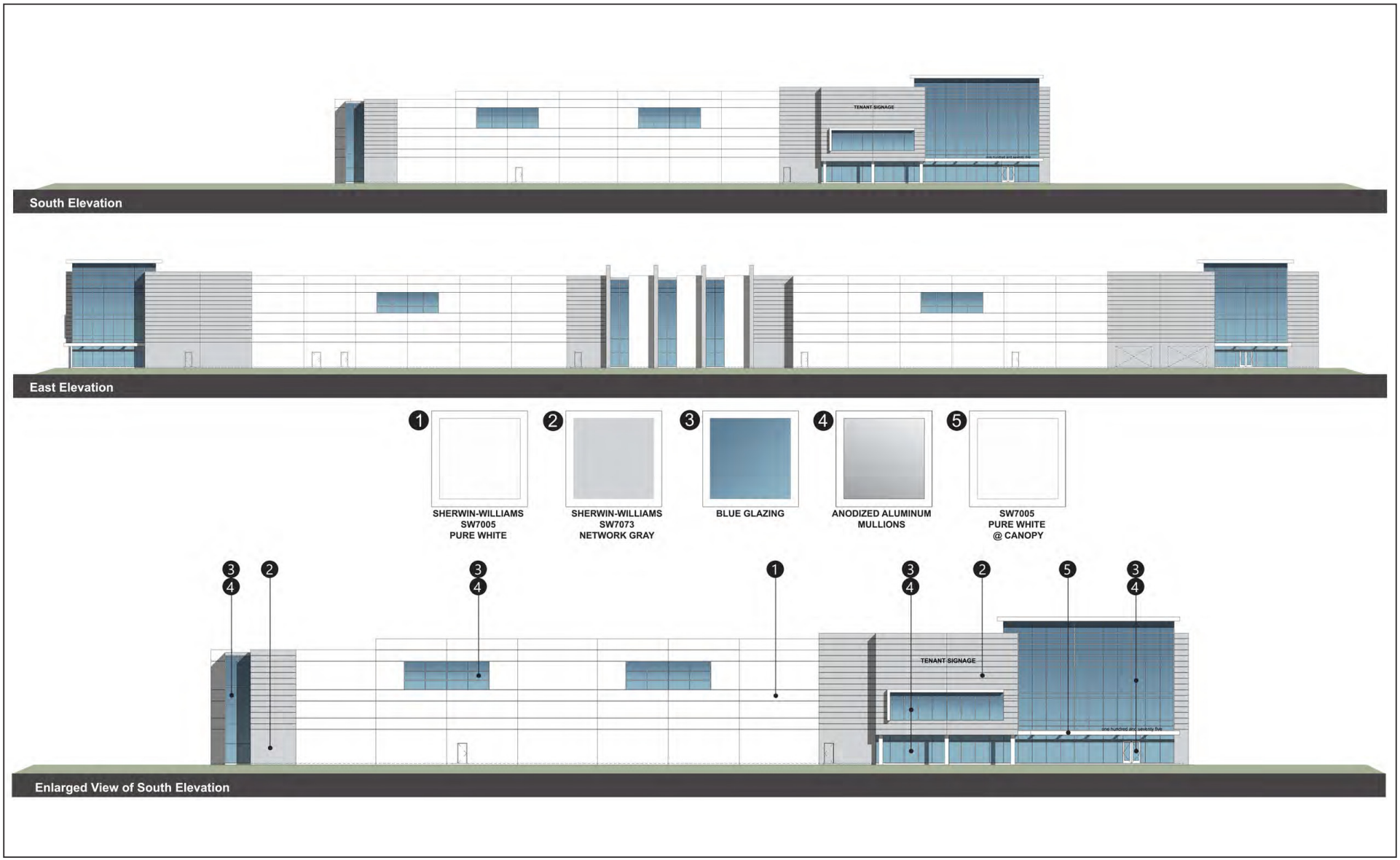

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FIGURE 3.8

5665 Plaza Drive Project Draft Environmental Impact Report

Proposed Building Finishes

SOURCE: HPA

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The proposed building would be 191,394 square feet in size, including 181,061 square feet of warehouse space and 10,333 square feet of office space (5,184 square feet on the first floor and 5,149 square feet on the second floor). The proposed office space would be located at the southeast corner of the building. The maximum building height would be approximately 51 feet, 6 inches, to the top of the parapet on the northeast and southeast corners of the building; however, the majority of the building would have a maximum height of 40 feet.

The proposed building would include a truck loading area with 25 dock-high loading doors on the west side of the building. The loading area would be recessed and not visible from the public right-of-way along Plaza Drive. Other than the truck loading area, surface parking, providing 206 parking stalls, and landscaped areas would generally surround the perimeter of the proposed building.

3.6.4 Operational Characteristics

The ultimate tenant has not been identified at this time; therefore, specific details about the future operation of the proposed building are not available. This analysis assumes that the proposed building would operate 24 hours per day, 7 days per week, depending on business and operational needs. Additionally, it is assumed that up to 100 percent of the warehouse space would be refrigerated, and that up to 100 percent of all trucks accessing the project site would have transport refrigeration units.

3.6.5 Access and Parking

The project site is currently accessible from two driveways along Plaza Drive. The proposed project would relocate the driveway locations. The new westernmost driveway would be the primary truck access point and path to the truck-loading docks on the proposed building's west side. The eastern driveway would be a shared driveway with the parcel to the east.

A total of 206 surface parking stalls would be provided around the project site's perimeter, consisting of 156 standard stalls, 4 standard accessible parking stalls, 4, van accessible parking stalls, 11 electric vehicle charging stations (EVCS), and 31 electric vehicle supply equipment (EVSE) stalls.

3.6.6 Landscaping

The majority of on-site landscaping would be along the perimeter of the project site and within the surface parking lot. Trees and ornamental vegetation would border the project site on all sides. Additional landscaping would be provided near the eastern driveway from Plaza Drive, which would include enhanced landscaped areas and decorative paving. The proposed project would result in the removal and replacement of several trees. To the extent feasible, the proposed project would use drought-tolerant vegetation and non-invasive plantings, consistent with Chapter 29, Article I, Water Efficient Landscape Requirements, of the City's Municipal Code. Parking areas would feature landscaping consistent with Cypress Municipal Code Section 3.13.060, which requires that parking areas include landscaped buffer zones between parking areas and rights-of-way, and between parking areas and drive aisles. The landscaping plan for the proposed project is shown on **Figure 3.9, Proposed Project Landscaping Plan**.

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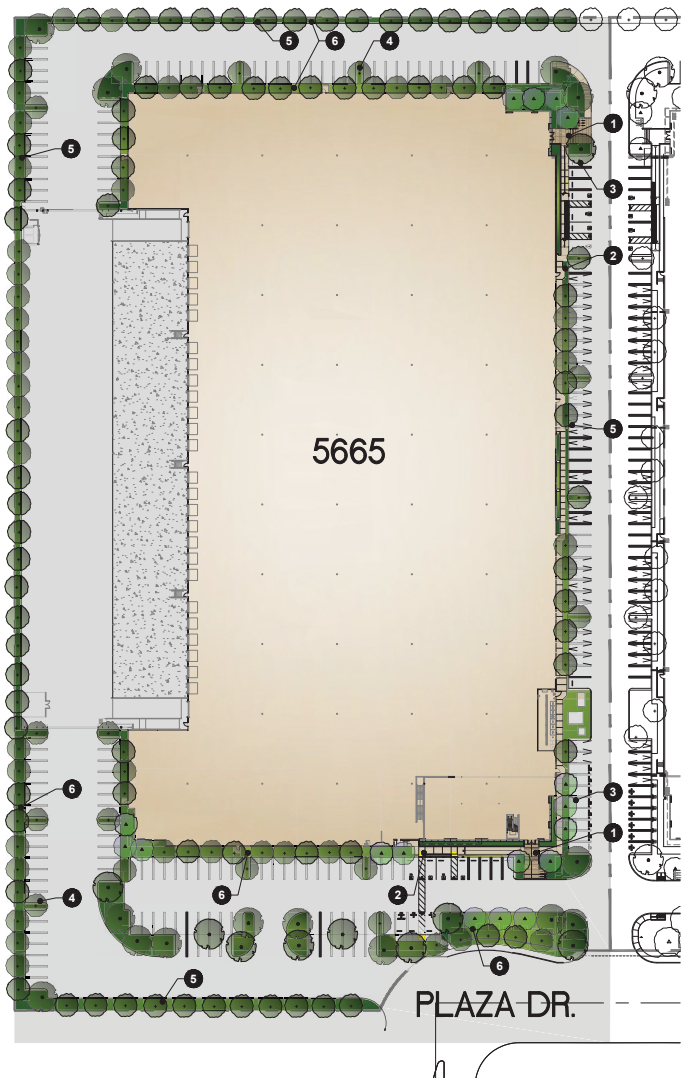

ONSITE PLANT SCHEDULE

TREES

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE / FORM	HT. X SPRD. X CAL. (MIN.)	WATER USE	DESCRIPTION
	LAGERSTROEMIA FAUERI 'TUSCARORA'	TUSCARORA CRAPE MYRTLE	24" BOX STD.	8'H X 5'W X 4"C	M	FLOWERING TREE
	LOPHOSTEMON CONFERTUS	BRISBANE BOX	24" BOX STD.	8'H X 5'W	M	EVERGREEN CANOPY
	TIPUANA TIPU	TIPU TREE	36" BOX STD.	14' H X 6'W	L	SEMIDECIDUOUS BROAD CANOPY

SHRUBS, GRASSES, & GROUNDCOVERS

SYMBOL	KEY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	WATER USE	DESCRIPTION
	AGA VIL	AGAVE VILMORINIANA	OCTOPUS AGAVE	15 GAL.	60" O.C.	L	ACCENT SUCCULENT
	ALO BE	ALOE 'BLUE ELF'	BLUE ELF ALOE	1 GAL.	24" O.C.	L	ACCENT SUCCULENT
	CAL LJ	CALLISTEMON 'LITTLE JOHN'	LITTLE JOHN BOTTLE BRUSH	5 GAL.	36" O.C.	L	MIDGROUND FLOWERING SHRUB
	CAR GC	CARISSA M. 'GREEN CARPET'	DWARF NATAL PLUM	1 GAL.	30" O.C.	L	EVERGREEN LOW SHRUB
	CAR DIV	CAREX DIVULSA	BERKELEY SEDGE	1 GAL.	24" O.C.	L	ORNAMENTAL GRASS
	DIA LR	DIANELLA 'LITTLE REV'	LITTLE REV FLAX LILY	1 GAL.	24" O.C.	L	UPRIGHT ACCENT
	DIA VAR	DIANELLA T. 'VARIEGATA'	VARIEGATED FLAX LILY	5 GAL.	36" O.C.	M	UPRIGHT ACCENT
	FES MAI	FESTUCA MAIREI	ATLAS FESCUE	1 GAL.	24" O.C.	L	ORNAMENTAL GRASS
	JUN PAT	JUNCUS PATENS	CALIFORNIA GRAY RUSH	1 GAL.	24" O.C.	L	MODULAR WETLAND PLANT
	LAN NG	LANTANA 'NEW GOLD'	NEW GOLD LANTANA	5 GAL.	36" O.C.	VL	FLOWERING LOW SHRUB
	MUH ET	MUHLENBERGIA 'EL TORO'	BULL RUSH	1 GAL.	36" O.C.	L	ORNAMENTAL GRASS
	OLE MON	OLEA 'MONTRA'	LITTLE OLLIE	5 GAL.	48" O.C.	L	LARGE SHRUB
	WES WG	WESTRINGIA 'WYNYABBIE GEM'	COAST ROSEMARY	5 GAL.	36" O.C.	L	EVERGREEN HEDGE
	CAL HAE	CALLIANDRA HAEMATOCEPHALA	RED POWDER PUFF	15 GAL.	15' O.C.	M	FLOWERING VINE

WATER USE KEY:
VL = VERY LOW WATER USE, L = LOW WATER USE, M = MODERATE WATER USE, H = HIGH WATER USE. WATER USE STATED IS PER 'WATER USE CLASSIFICATION OF LANDSCAPE SPECIES' (ALSO REFERRED TO AS WUCOLS IV) FOR THE CITY OF CYPRESS, CA.

EXISTING TREE DISPOSITION

EXISTING TREES REMOVED	157
NEW TREES PROPOSED	173

LEGEND

1. ENHANCED PAVING AT BUILDING ENTRY
2. CONCRETE WALKWAYS
3. PROPOSED ACCENT TREES
4. PROPOSED PARKING TREES
5. PROPOSED SCREEN TREES
6. DROUGHT TOLERANT LANDSCAPE

EXISTING PLANT SCHEDULE

TREES

SYMBOL	BOTANICAL NAME	COMMON NAME
	PLATANUS ACERFOLIA	LONDON PLANE
	ERYTHRINA CAFFRA	CORAL
	LOPHOSTEMON CONFERTUS	BRISBANE BOX

NOTE: THE LETTER (E) NEXT TO A TREE SYMBOL INDICATES AN EXISTING TREE TO BE PROTECTED IN PLACE. THE LETTER (R) INDICATES AN EXISTING TREE TO BE REMOVED FROM SITE.

LSA

FIGURE 3.9

N

0 90 180

FEET

SOURCE: HPA

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5665 Plaza Drive Project Draft Environmental Impact Report

Proposed Project Landscaping Plan

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3.6.7 Utilities and Drainage

New water and sewer lines would be constructed on site and would connect to the existing water lines and sewer mains within Plaza Drive. An underground stormwater chamber, allowing for capture and treatment of stormwater that falls on the project site, would be constructed beneath the truck loading area along the west side of the building. The stormwater chamber would be approximately 8 feet wide and 403 feet long and extend approximately 8 feet in depth. The electrical utilities for the project site would be provided by Southern California Edison (SCE) and connect to existing infrastructure in the public right-of-way along Plaza Drive adjacent to the project site. Solid waste services would be provided by Valley Vista Services of Orange County.

The proposed project would be required to comply with all federal, State, and local regulations related to drainage and water quality. After project grading and construction, the proposed project would increase the impervious surface area on the project site by 28,374 square feet.

3.6.8 Project Design Features

The proposed project would be designed to comply with the water efficiency and energy conservation requirements included in the California Building Standards Code (California Code of Regulations [CCR], Title 24). Building features necessary to achieve Leadership in Energy and Environmental Design (LEED) Certified would be incorporated.

3.6.9 Construction Schedule

Development of the proposed project would require the demolition of the existing structure on the site, excavation and grading of the site, delivery of materials and personnel, construction of the building and parking areas, and landscaping of the project site. Construction of the proposed project would take place in a single phase. Demolition is anticipated to take 60 days, and construction is anticipated to take approximately 10 months. Construction is tentatively anticipated to begin in October 2024 and end in July 2025. Construction is expected on weekdays between the hours of 7:00 a.m. and 5:00 p.m. Per Section 13-70 of the City's Municipal Code, Special Provisions, construction is permitted within the City between 7:00 a.m. and 8:00 p.m. on weekdays, and 9:00 a.m. and 8:00 p.m. on Saturdays. No noise-generating construction activities are permitted on Sundays or federal holidays.

Based on the preliminary grading plans, approximately 940 cubic yards of material would need to be exported from the project site. Demolition, grading, and building activities would involve the use of standard earthmoving equipment such as excavators, loaders, bulldozers, cranes, and other related equipment.

All construction equipment and materials, including construction employees' personal motor vehicles, would be staged on site or on adjacent property directly east of the project site.

3.6.10 Discretionary Actions and Non-Discretionary Permits/Approvals

The City is the Lead Agency and has principal authority and jurisdiction over all land use entitlements within its incorporated boundaries. The proposed project would require the following discretionary approvals by the City:

- The City Council would certify that the Final EIR addresses the potential environmental effects of the proposed project and identifies appropriate mitigation measures to address any potentially significant effects;

- Specific Plan Amendment to the McDonnell Center Specific Plan to allow light industrial uses in the eastern portion of Planning Area 1, and removal of the maximum developable area requirement while retaining the 1.0:1 floor area ratio (FAR) to maintain consistency with the General Plan; and

- Site plan approval.

Other non-discretionary actions anticipated to be taken by the City and additional agencies at the staff level as part of the proposed project include, but are not limited to, the actions detailed in **Table 3.1**, below.

Table 3.1: Non-Discretionary Permits/Approvals

Agency	Permit/Approval
City of Cypress Community Development Department	Demolition, building, and grading permits
State Water Resources Control Board (SWRCB)	Waste Discharge Identification Number (WDID) for the *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities* (Order No. 2022-0057-DWQ, National Pollutant Discharge Elimination System (NPDES) No. CAS000002)
Santa Ana Regional Water Quality Control Board (RWQCB) (Region 8)	Waste Discharge Identification Number (WDID) for the General Waste Discharge Requirements for Discharge to Surface Waters that Pose an Insignificant (*De Minimis*) Threat to Water Quality (Order No. R8-2020-0006-057 NPDES No. CAG998001)
Orange County Fire Authority (OCFA)	Plan Approval, including emergency access and fire water supply
City of Cypress Community Development Department	Lot line adjustment to move the project site's eastern property line approximately 20 feet east

4.0 EXISTING SETTING, ENVIRONMENTAL ANALYSIS, IMPACTS, AND MITIGATION MEASURES

OVERVIEW OF ENVIRONMENTAL SETTING

State CEQA Guidelines Section 15125 requires an EIR to include a short description of the physical environmental conditions in the vicinity of a project. This section provides a short description of existing conditions in the proposed project's physical setting. More detailed descriptions of existing conditions focused on each environmental resource are provided in the subsequent sections. A discussion of cumulative impacts is also required. This chapter identifies a list of past, present, and reasonably foreseeable probable future projects that when considered with the proposed project could result in cumulative impacts. More detailed discussions of cumulative impacts focused on each environmental resource are provided in the subsequent sections.

Regional Setting

As discussed in Chapter 3.0, Project Description, of this EIR, the project site is in the southern part of the city of Cypress, in northwestern Orange County, California. The project site is north of the intersection of Plaza Drive and Douglas Drive. As shown on **Figure 3.1: Regional and Project Site Location**, regional access to the project site is provided via SR-22, located approximately 2.2 miles south of the project site, SR-91, located approximately 3.5 miles north of the project site, I-605 or the San Gabriel River Freeway, located approximately 2.2 miles west of the project site, and I-5, located approximately 4.75 miles northeast of project site.

Project Site Setting

Figure 3.2: Aerial Photograph and Surrounding Land Uses, depicts the project site in a local setting. The project site is approximately 8.5 acres and is currently developed with a 150,626-square-foot, five-story office building, a surface parking lot, and ornamental landscaping. As of May 2024, the existing office building was vacant and had no tenants. Historically, the project site was in agricultural production until the existing building was constructed in the late 1980s.

The project site is located in a largely developed portion of the City of Cypress within the McDonnell Specific Plan that consists of numerous office/light industrial uses. The project site is bounded by industrial and office uses to the north, industrial uses to the west, Plaza Drive to the south, and the Goodman Commerce Center Project to the east. The Goodman Commerce Center Project, approved in April 2023, was under construction at the time of the preparation of this EIR.

Pedestrian access to the project site is provided by way of sidewalks along the left side of Douglas Drive/Plaza Drive from Katella Avenue to the current driveway. There are no sidewalks along Plaza Drive east of the project site. Vehicular access to the project site is provided via an existing driveway at 5665 Plaza Drive and a shared driveway at the adjacent property at 5775 Plaza Drive. Local access to the project site is provided via Plaza Drive. The project site is currently served by existing water, sewer, and dry utilities along Plaza Drive.

The project site is located on a single parcel, Assessor Parcel Number (APN) 241-101-25.

CHAPTER FORMAT

This chapter contains eight sections, and each section addresses one environmental topic identified in Appendix G to the State CEQA Guidelines. For each environmental topic issue analyzed, the EIR includes a detailed explanation of the existing conditions, thresholds of significance that will be applied to determine whether the project's impacts are significant or less than significant, analysis of the environmental impacts, and a determination of whether the project would have a significant impact if implemented. A "significant impact" or "significant effect" means "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora fauna, ambient noise, and object of aesthetic significance. An economic or social change by itself shall not be considered to be a significant effect on the environment." (State CEQA Guidelines Section 15382). Each environmental topic section in this chapter includes a discussion of the cumulative effects of the project when considered in combination with other projects, as required by State CEQA Guidelines Section 15130.

Each of the sections is organized into eleven subsections, as follows:

- **Introduction** briefly describes the topics and issues covered in the section.
- **Scoping Process** describes the number and a brief description of comments received from the public during the public scoping period.
- **Methodology** describes the approach and methods employed to complete the environmental analysis for the issue under investigation.
- **Existing Environmental Setting** describes the relevant physical conditions that exist at the time of the issuance of the Notice of Preparation (NOP) that may influence or affect the issue under investigation. This section focuses on physical site characteristics that are relevant to the environmental topic being analyzed.
- **Regulatory Setting** lists and discusses the laws, ordinances, regulations, plans, and policies that relate to the specific environmental topic and how they apply to the proposed project.
- **Thresholds of Significance** sets forth the thresholds that are the basis of the conclusions regarding significance, which are primarily the criteria in Appendix G to the State CEQA Guidelines and the City of Cypress Initial Study/Environmental Checklist, General Plan, or Zoning Code.
- **Project Impacts** describes the potential environmental changes to the existing physical conditions that may occur if the proposed project is implemented. Evidence is presented to show the cause-and-effect relationship between the proposed project and potential changes in the environment. In accordance with State CEQA Guidelines Section 15126.2(a), this EIR is required to "identify and focus on the significant environmental effects" of the proposed project. The magnitude, duration, extent, frequency, and range or other parameters of a potential impact are ascertained to the extent feasible to determine whether impacts may be significant. In accordance with CEQA, potential project impacts, if any, are classified as follows for each of the environmental topics discussed in this EIR.

- **Significant and Unavoidable Impact:** If the proposed project is approved with significant and unavoidable impacts, the decision-making body is required to adopt a statement of overriding considerations pursuant to State CEQA Guidelines Section 15093 explaining why the project benefits outweigh the unavoidable adverse environmental effects caused by those significant and unavoidable environmental impacts.
- **Less Than Significant with Mitigation Incorporated:** This classification refers to potentially significant environmental impacts that can be feasibly mitigated to a level of insignificance. If the proposed project is approved, the decision-making body is required to make findings pursuant to State CEQA Guidelines Section 15091 that significant impacts have been mitigated to the extent feasible through implementation of mitigation measures.
- **Less Than Significant Impact:** Less than significant impacts are environmental impacts that have been identified but are not potentially significant. No mitigation is required for less than significant impacts.
- **No Impact:** A "no impact" determination is made when the proposed project is found to have no environmental impact.

- **Level of Significance Prior to Mitigation** summarizes the potentially significant impacts of the project, if any, prior to mitigation.
- **Regulatory Compliance Measures and Mitigation Measures** describes relevant and applicable laws or regulations that must be adhered to with respect to the construction and/or operation of the proposed project and would reduce or lessen potential impacts related to a particular issue area and identifies project-specific measures that avoid, minimize, rectify, reduce, eliminate, or compensate for a potentially significant impact.
- **Level of Significance after Mitigation** describes the significance of potential impacts after implementation of mitigation measures. Potential significant unavoidable impacts are clearly stated in this section.
- **Cumulative Impacts** refers to potential environmental changes to the existing physical conditions that may occur as a result of project implementation together with all other reasonably foreseeable, planned, and approved future projects in the vicinity of the project site that produce related impacts. State CEQA Guidelines Section 15355 defines cumulative impacts as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." Cumulative impacts may result from individually minor but collectively significant projects taking place over a period of time. Projects that have progressed to the stage where CEQA review has been initiated are normally treated as foreseeably probable future projects. For each of the environmental topics considered in this EIR, the geographic scope of the cumulative analysis is defined.

THRESHOLDS OF SIGNIFICANCE

The threshold questions used in this EIR are consistent with Appendix G of the State CEQA Guidelines.

EFFECTS EVALUATED IN THIS EIR

The discussion of potential effects is presented by environmental resource area in this EIR. As part of the Initial Study (Appendix B) prepared for the proposed project, the following environmental issues were considered but no adverse impacts were identified. Furthermore, no new information identifying potentially significant impacts to these resources was presented during the scoping process. As a result, there is no further discussion of the following issues in the EIR:

- Aesthetics
- Agriculture and Forestry Resources
- Biological Resources
- Hazards & Hazardous Materials
- Hydrology/Water Quality
- Land Use and Planning
- Mineral Resources
- Population and Housing
- Public Services
- Recreation
- Utilities and Service Systems
- Wildfire

CUMULATIVE DEVELOPMENT

In accordance with State CEQA Guidelines Section 15130, cumulative impacts are anticipated impacts of the proposed project along with reasonably foreseeable growth. Reasonably foreseeable growth may be based on either:

- A list of past, present, and reasonably foreseeable probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency; or

- A summary of projections contained in the adopted General Plan or related planning document, or in a prior environmental document that has been adopted or certified, and that described or evaluated regional or areawide conditions contributing to the cumulative impact.

Table 4.1, below, presents a list of past, present, and reasonably foreseeable probable future projects (cumulative projects) considered in the evaluation of potential cumulative impacts for this EIR. As stated above, an analysis of the cumulative impacts associated with these related projects and the proposed project is provided in the cumulative impacts discussion under each individual impact category in Chapter 4.0.

For purposes of identifying projects with potential for cumulative impacts, a list of past, present, and reasonably foreseeable probable future projects was developed. As shown in **Table 4.1**, the projects include various land uses, such as residential, commercial, and industrial uses.

The locations of the related projects are shown on **Figure 4.1: Cumulative Projects**. Although some projects on the list have been completed since issuance of the NOP, they remain on the list because they are part of the cumulative analysis for the EIR.

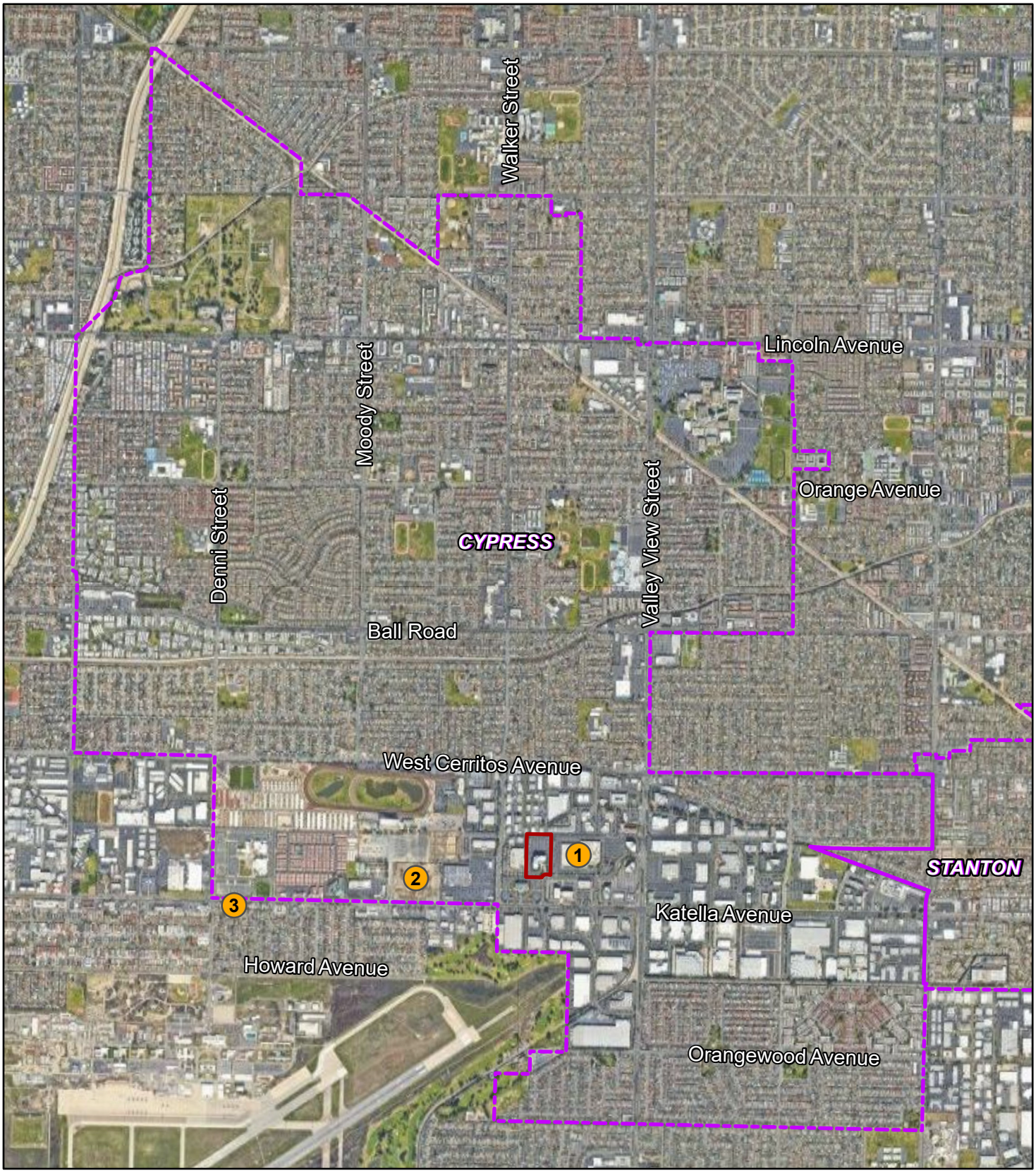

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FIGURE 4.1

5665 Plaza Drive Project Draft Environmental Impact Report

Cumulative Projects

SOURCE: Google Maps (2023)

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Table 4.1: Summary of Cumulative Projects

Project No.	Project Name	Location	Status	Project Description
City of Cypress				
1	Goodman Commerce Center[7]	5757 Plaza Drive	Under construction as of 2024	204,909-square-foot office/ warehouse building 185,359-square-foot office/ warehouse building
2	Cypress Town Center	10727 Champions Lane	Under construction as of 2024	Multifamily apartments 135 du (condominiums and townhomes)
3	Cypress City Center (The Square)	Northwest corner of Winners Circle and Katella Avenue	Under construction as of 2024	251 du apartments 20,800-square-foot retail 120-room hotel 10-screen multiplex movie theater

du = dwelling unit
sf = square foot/feet

It is noted that some of the cumulative projects may not be completed in 2025 (the proposed project's anticipated buildout year), may never be built, or may be approved and built at reduced densities. However, to provide a conservative forecast, the future baseline forecast assumes that all of the related projects will be fully built out by 2025.

The discussion of cumulative impacts "should be guided by the standards of practicality and reasonableness" (*Environmental Protection Info. Center v. Department of Forestry & Fire Protection* (2008) 44 Cal.4th 459, 524). A proposal that has not crystallized to the point that it would be reasonable and practical to evaluate its cumulative impacts need not be treated as a probable future project (*City of Maywood v. Los Angeles Unified School District* (2012) 208 Cal.App.4th 362, 397).

Rather, a potential future project qualifies for inclusion in an analysis of cumulative impacts only to the extent the future project is "both probable and sufficiently certain to allow for meaningful cumulative impact analysis" (*Id.* at 398; see *City of Long Beach v. Los Angeles Unified School Dist.* (2009) 176 Cal.App.4th 889, 902 [when "review[ing] the agency's decision to include information in the cumulative impacts analysis[,] ... [w]e determine whether inclusion was reasonable and practical"]).

[7] The Goodman Commerce Center project, even though it has the same project proponent as the proposed project, is an independent, cumulative project. The proposed project is on a separate parcel and is not a reasonably foreseeable consequence of the Goodman Commerce Center project. (*McCann v. City of San Diego* (2021) 70 Cal.App.5th 51, 85 [city could separately consider different utility undergrounding projects because each project was separately approved and independently functional of the other projects]; *Banning Ranch Conservancy v. City of Newport Beach* (2012) 211 Cal.App.4th 1209, 1222 [no piecemealing because project was not a "reasonably foreseeable consequence" of another project].) The Goodman Commerce Center project was designed to function as an independent development, with all required public and private improvements (such as internal accessways and driveways). It did not necessitate or compel the proposed project. (*Aptos Council v. County of Santa Cruz* (2017) 10 Cal.App.5th 266, 280 ["when each action has independent utility and does not subsume or necessitate each other, the actions may properly undergo separate environmental review"].) The proposed project can likewise function independently and proposes all necessary on-site and off-site improvements needed to ensure proper operation of the proposed 191,394-square-foot light industrial building.

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4.1 AIR QUALITY

This section describes the potential air quality impacts for the proposed 5665 Plaza Drive Project (proposed project) using methodologies and assumptions recommended in the air quality impact assessment guidelines of the South Coast Air Quality Management District (SCAQMD) *California Environmental Quality Act (CEQA) Air Quality Handbook,*[8] and associated updates. In keeping with these guidelines, this section of the Draft EIR describes the regulatory setting, existing air quality in the proposed project area, and describes short-term impacts during construction, long-term impacts associated with operations, and potential impacts to human health. The air quality modeling data used for this analysis is provided in **Appendix C** to this Draft EIR.

4.1.1 Scoping Process

The City received 3 comment letters during the public review period for the NOP. For copies of the NOP comment letters, refer to **Appendix A** of this EIR. Two comment letters included comments related to Air Quality.

The letter from The City of Los Alamitos received on June 5, 2024, suggested that the Draft EIR should evaluate the proposed project's impact on air quality from the proposed change in land use.

The Letter from Warland Investments Company and Affiliated Entities received on June 5, 2024, suggest that the proposed project has a foreseeable potential use as a logistics center, stating that logistics centers contribute to excessive air pollution when compared to typical warehouse projects. Additionally, in a previous letter dated March 7, 2024, which was included as an attachment in the June 5, 2024, letter, Warland states their concerns regarding the short and long-term impacts to air quality in surrounding areas due to the proposed cumulative redevelopment of 5665 Plaza Drive. The Letter also stated that the proposed project does not consider the air quality impacts of refrigerated trucks accessing the project site and also fails to evaluate off-site air quality impacts.

4.1.2 Regulatory Setting

The applicable federal, State, regional, and local regulatory framework is discussed below.

4.1.2.1 Federal Regulations

Clean Air Act (CAA) (42 U.S.C. §§ 7401-7671q), was largely enacted in 1970 and subsequently amended in 1977, and 1990. The CAA establishes federal air quality standards for six pollutants, ("criteria pollutants"). These criteria pollutants include carbon monoxide (CO), ozone (O_3), particulate matter 10 microns in diameter and less (PM_{10}), particulate matter 2.5 microns and less ($PM_{2.5}$), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and lead (Pb). The federal air quality standards are known as the National Ambient Air Quality Standards (NAAQS). The CAA charges the U.S. Environmental Protection Agency (USEPA) with setting and enforcing the NAAQS for criteria pollutants. The NAAQS also include dates by which compliance must be achieved.

[8] South Coast Air Quality Management District (SCAQMD). 1993. *CEQA Air Quality Handbook.* Website: http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook- (1993), (accessed May 13, 2024).

Areas of the United States that have met the NAAQS are described as being in "attainment." Areas that have not achieved the NAAQS are described as being in "nonattainment." Areas that were previously in nonattainment but have since achieved the NAAQS are described as being in "maintenance." The CAA requires each state that has not met the NAAQS to prepare an air quality control plan referred to as a State Implementation Plan (SIP) demonstrating how the State will achieve the NAAQS. SIPs are periodically modified to reflect the latest emissions inventories, planning documents, and rules and regulations of their subject air basins as reported by their jurisdictional agencies. The USEPA has responsibility to review every State's SIP to determine conformity with the mandates of the CAA and determine if implementation would achieve air quality goals. If the USEPA determines a SIP to be inadequate, a Federal Implementation Plan may be prepared for the nonattainment area, which imposes additional control measures. Failure to submit an approvable SIP or to implement the plan within the mandated timeframe may result in sanctions on transportation funding and stationary air pollution sources in the air basin.

The CAA Amendments of 1990 identified specific emission reduction goals for areas not achieving the NAAQS. The amendments included additional requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution, as well as requirements for States to demonstrate reasonable progress towards meeting the NAAQS and sanctions for failure to meet certain milestones in achieving the NAAQS.

The USEPA is also required to develop National Emission Standards for Hazardous Air Pollutants (HAPs), which are defined as pollutants which may reasonably be anticipated to result in increased deaths or serious illness, and which are not already regulated. An independent science advisory board reviews the health and exposure analyses conducted by the USEPA on suspected hazardous pollutants prior to regulatory development.

4.1.2.2 State Regulations

California Clean Air Act (CCAA)(Assembly Bill 2595). Enacted in 1988, the CCAA requires all air quality districts in the State develop air quality plans and authorizes air quality districts to implement transportation control measures. The CCAA charges the California Air Resources Board (CARB) with implementation of the CCAA, regulating emissions from consumer products and motor vehicles, and responding to the requirements of the federal CAA. The CCAA mandates achievement of emissions reductions to the maximum degree possible to achieve and maintain the California Ambient Air Quality Standards (CAAQS). The CAAQS set standards for the same criteria pollutants for which NAAQS have been established as well as sulfates (SO_4^{2-}), visibility reducing particles, hydrogen sulfide (H_2S), and vinyl chloride (C_2H_3Cl). **Table 4.1.1** presents the NAAQS and CAAQS.

The project site is located in the South Coast Air Basin (Basin) under the authority of the SCAQMD. The CCAA endows local air quality management districts with authority to regulate air emissions from stationary sources, including commercial and industrial facilities, and mandates that air quality districts focus particular attention on reducing emissions from transportation and area-wide emission sources. Each district with areas in nonattainment are required to adopt air quality management plans (AQMPs) to achieve a 5 percent annual reduction, averaged over consecutive 3-year periods, in district-wide emissions of each nonattainment pollutant or its precursors. An AQMP shows how a district would reduce emissions to achieve air quality standards. Generally, the State standards for these pollutants are more stringent than the national standards.

Table 4.1.1: Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards [1]		Federal Standards [2]		
		Concentration [3]	Method [4]	Primary [3,5]	Secondary [3,6]	Method [7]
Ozone (O_3)[8]	1-Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	–	Same as Primary Standard	Ultraviolet Photometry
	8-Hour	0.07 ppm (137 µg/m^3)		0.070 ppm (137 µg/m^3)		
Respirable Particulate Matter (PM_{10})[9]	24-Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		–		
Fine Particulate Matter ($PM_{2.5}$)[9]	24-Hour	–		35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	9.0 µg/m^3	15.0 µg/m3	
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m^3)	–	Non-Dispersive Infrared Photometry (NDIR)
	1-Hour	20 ppm (23 mg/m^3)		35 ppm (40 mg/m^3)		
	8-Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		–	–	
Nitrogen Dioxide (NO_2)[10]	Annual Arithmetic Mean	0.03 ppm (57 µg/m^3)	Gas Phase Chemi-luminescence	53 ppb (100 µg/m^3)	Same as Primary Standard	Gas Phase Chemi-luminescence
	1-Hour	0.18 ppm (339 µg/m^3)		100 ppb (188 µg/m^3)	–	
Lead (Pb)[12,13]	30-Day Average	1.5 µg/m^3	Atomic Absorption	–	–	High-Volume Sampler and Atomic Absorption
	Calendar Quarter	–		1.5 µg/m^3 (for certain areas)[l]	Same as Primary Standard	
	Rolling 3-Month Average [i]	–		0.15 µg/m^3		
Sulfur Dioxide (SO_2)[11]	24-Hour	0.04 ppm (105 µg/m3)	Ultraviolet Fluorescence	0.14 ppm (for certain areas)	–	Ultraviolet Fluorescence; Spectro-photometry (Pararosaniline Method)
	3-Hour	–		–	0.5 ppm (1300 µg/m^3)	
	1-Hour	0.25 ppm (655 µg/m^3)		75 ppb (196 µg/m^3)[11]	–	
	Annual Arithmetic Mean	–		0.030 ppm (for certain areas)[11]	–	
Visibility-Reducing Particles [12]	8-Hour	See footnote [14]	Beta Attenuation and Transmittance through Filter Tape	No Federal Standards		
Sulfates	24-Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride [10]	24-Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

Source: Ambient Air Quality Standards (California Air Resources Board 2024).
Notes on following page.

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

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

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

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

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

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

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

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

[9] On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 µg/m^3 to 12.0 µg/m^3. In February 2024, the national annual $PM_{2.5}$ primary standard was lowered from 12 µg/m^3 to 9.0 µg/m^3; the secondary annual standard remained at 15 µg/m^3. The existing national 24- hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 µg/m^3, as was the annual secondary standard of 15 µg/m^3. The existing 24-hour PM_{10} standards (primary and secondary) of 150 µg/m^3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

[10] To attain the 1-hour national standard, the three-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 parts per billion (ppb). California standards are in units of parts per million (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.

[11] On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the three-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated 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 parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

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

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

[14] In 1989, the 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.

°C = degrees Celsius
µg/m^3 = micrograms per cubic meter
CARB = California Air Resources Board
mg/m^3 = milligrams per cubic meter
ppb = parts per billion
ppm = parts per million
USEPA = United States Environmental Protection Agency

4.1.2.3 Criteria Air Pollutants

As discussed above, both State and federal governments have established health-based ambient air quality standards for criteria air pollutants. Criteria pollutants are defined as those pollutants for which the federal and State governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health.

As both the USEPA and the CARB have established ambient air quality standards for CO, O_3, NO_2, SO_2, Pb, and suspended particulate matter. In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. These ambient air quality standards are levels of contaminants that avoid specific adverse health effects associated with each pollutant.

Federal standards include both primary and secondary standards. Primary standards establish limits to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility, and damage to animals, crops, vegetation, and buildings.[9] The criteria pollutants are described in greater detail below.

Ozone. O_3 is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving ROG and NO_x. The main sources of ROG and NO_x, often referred to as ozone precursors, are combustion processes (including combustion in motor vehicle engines) and the evaporation of solvents, paints, and fuels. Automobiles are typically the largest source of ozone precursors. Ozone is referred to as a regional air pollutant because its precursors are transported and diffused by wind concurrently with ozone production through the photochemical reaction process. Ozone causes eye irritation, airway constriction, and shortness of breath and can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema.

Particulate Matter. Particulate matter is a class of air pollutants that consists of heterogeneous solid and liquid airborne particles from humanmade and natural sources. Particulate matter is categorized in two size ranges: PM_{10}, for particles less than 10 microns in diameter, and $PM_{2.5}$, for particles less than 2.5 microns in diameter. Motor vehicles are the primary generators of particulates, through tailpipe emissions as well as brake pad and tire wear, and entrained road dust. Wood burning in fireplaces and stoves, industrial facilities, and ground-disturbing activities such as construction are other sources of such fine particulates. These fine particulates are small enough to be inhaled into the deepest parts of the human lung and can cause adverse health effects. According to CARB, studies in the United States and elsewhere have demonstrated a strong link between elevated particulate levels and premature deaths, hospital admissions, emergency room visits, and asthma attacks, and studies of children's health in California have demonstrated that particle pollution may significantly reduce lung function growth in children.[10] Statewide attainment of

[9] United States Environmental Protection Agency (USEPA). 2017. Criteria Air Pollutants. October. Website: www.epa.gov/criteria-air-pollutants (accessed May 13, 2024).

[10] California Air Resources Board (CARB). 2020. *Inhalable Particulate Matter and Health ($PM_{2.5}$ and PM_{10})*. Website: ww2.arb.ca.gov/resources/inhalable-particulate-matter-and-health (accessed May 13, 2024).

particulate matter standards could reduce premature deaths, hospital admissions for cardiovascular and respiratory disease, asthma-related emergency room visits, and episodes of respiratory illness in California.

Carbon Monoxide. CO is an odorless, colorless gas usually formed as the result of the incomplete combustion of fuels. The single largest source of CO is motor vehicles. CO transport is limited – it disperses with distance from the source under normal meteorological conditions. However, under certain extreme meteorological conditions, CO concentrations near congested roadways or intersections may reach unhealthful levels that adversely affect local sensitive receptors (e.g., residents, schoolchildren, the elderly, and hospital patients). Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service or with extremely high traffic volumes. Exposure to high concentrations of CO reduces the oxygen-carrying capacity of the blood and can cause headaches, nausea, dizziness, and fatigue, impair central nervous system function, and induce angina (chest pain) in persons with serious heart disease. Extremely high levels of CO, such as those generated when a vehicle is running in an unventilated garage, can be fatal.

Nitrogen Dioxide. NO_2 is a reddish-brown gas that is a byproduct of combustion processes. Automobiles and industrial operations are the main sources of NO_2. Aside from its contribution to ozone formation, NO_2 also contributes to other pollution problems, including a high concentration of fine particulate matter, poor visibility, and acid deposition. NO_2 may be visible as a coloring component on high pollution days, especially in conjunction with high ozone levels. NO2 decreases lung function and may reduce resistance to infection.

Sulfur Dioxide. SO_2 is a colorless, acidic gas with a strong odor. It is produced by the combustion of sulfur-containing fuels such as oil, coal, and diesel. SO_2 has the potential to damage materials and can cause health effects at high concentrations. It can irritate lung tissue and increase the risk of acute and chronic respiratory disease. SO_2 also reduces visibility and the level of sunlight at the ground surface.

Lead. Lead is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been mobile and industrial sources. As a result of the phase-out of leaded gasoline, metal processing is currently the primary source of lead emissions. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery factories. Twenty years ago, mobile sources were the main contributor to ambient lead concentrations in the air. In the early 1970s, the USEPA established national regulations to gradually reduce the lead content in gasoline. In 1975, unleaded gasoline was introduced for motor vehicles equipped with catalytic converters. The USEPA banned the use of leaded gasoline in highway vehicles in December 1995. As a result of USEPA regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector and levels of lead in the air decreased dramatically.

Volatile Organic Compounds. VOCs (also known as ROGs) form from the combustion of fuels and the evaporation of organic solvents. VOCs are not defined as criteria pollutants; however, because VOCs accumulate in the atmosphere more quickly during the winter, when sunlight is limited and photochemical reactions are slower, they are a prime component of the photochemical smog reaction. There are no attainment designations for VOCs.

Toxic Air Contaminants. In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. Some examples of TACs include benzene, butadiene, formaldehyde, and hydrogen sulfide. Potential human health effects of TACs include birth defects, neurological damage, cancer, and death. There are hundreds of different types of TACs with varying degrees of toxicity. Individual TACs vary greatly in the health risk they present; at a given level of exposure, one TAC may pose a hazard that is many times greater than another. TACs do not have ambient air quality standards, but are regulated by the USEPA, the CARB, and the SCAQMD. In 1998, the CARB identified particulate matter from diesel-fueled engines as a TAC. The CARB has completed a risk management process that identified potential cancer risks for a range of activities and land uses that are characterized by use of diesel-fueled engines.[11] High volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic (distribution centers, truck stops) were identified as posing the highest risk to adjacent receptors. Other facilities associated with increased risk include warehouse distribution centers, large retail or high-volume transit centers, and schools with a high volume of bus traffic, which generate diesel engine trips. Health risks from TACs are a function of both concentration and duration of exposure.

Unlike TACs emitted from heavy industrial and other stationary sources noted above, most diesel particulate matter (DPM) is emitted from mobile sources—primarily "off-road" sources such as construction and mining equipment, agricultural equipment, and truck-mounted refrigeration units, as well as trucks and buses traveling on freeways and local roadways. DPM is the TAC most associated with warehousing uses.

The CARB Diesel Risk Reduction Plan is intended to substantially reduce diesel particulate matter emissions and associated health risks through introduction of ultra-low-sulfur diesel fuel—a step already implemented—and cleaner-burning diesel engines.[12] The technology for reducing diesel particulate matter emissions from heavy-duty trucks is well established, and both State and federal agencies are moving aggressively to regulate engines and emission control systems to reduce and remediate diesel emissions.

Table 4.1.2 describes the sources and effects of criteria air pollutants.

The Air Toxics "Hot Spots" Information and Assessment Act of 1987 (AB 2588)(Health & Safety Code § 44300, *et seq*.; Cal. Code Regs § 93300, *et seq.*) Under AB 2588, stationary sources of air pollutants are required to report the types and quantities of certain substances that their facilities routinely released into the air. The goals of the Air Toxics "Hot Spots" Act are to collect emission data, identify facilities having localized impacts, determine health risks, and notify nearby residents of significant risks.

11 CARB. 2000a. *Fact Sheet – California's Plan to Reduce Diesel Particulate Matter Emissions*. October. Website: www.arb.ca.gov/diesel/factsheets/rrpfactsheet.pdf (accessed May 13, 2024).

12 CARB. 2000b. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*. October. Prepared by the Stationary Source Division and Mobile Source Control Division. Website: www.arb.ca.gov/diesel/documents/rrpFinal.pdf (accessed May 13, 2024).

Table 4.1.2: Sources and Health Effects of Air Pollutants

Pollutants	Sources	Primary Effects
Ozone (O_3)	• Precursor sources:[1] motor vehicles, industrial emissions, and consumer products.	• Respiratory symptoms. • Worsening of lung disease leading to premature death. • Damage to lung tissue. • Crop, forest, and ecosystem damage. • Damage to a variety of materials, including rubber, plastics, fabrics, paints, and metals.
Particulate Matter Less than 2.5 Microns in Diameter ($PM_{2.5}$)	• Cars and trucks (especially diesels). • Fireplaces, woodstoves. • Windblown dust from roadways, agriculture, and construction.	• Premature death. • Hospitalization for worsening of cardiovascular disease. • Hospitalization for respiratory disease. • Asthma-related emergency room visits. • Increased symptoms, increased inhaler usage.
Particulate Matter Less than 10 Microns in Diameter (PM_{10})	• Cars and trucks (especially diesels). • Fireplaces, woodstoves. • Windblown dust from roadways, agriculture, and construction.	• Premature death and hospitalization, primarily for worsening of respiratory disease. • Reduced visibility and material soiling.
Nitrogen Oxides (NO_X)	• Any source that burns fuels such as cars, trucks, construction and farming equipment, and residential heaters and stoves.	• Lung irritation. • Enhanced allergic responses.
Carbon Monoxide (CO)	• Any source that burns fuels such as cars, trucks, construction and farming equipment, and residential heaters and stoves.	• Chest pain in patients with heart disease. • Headache. • Light-headedness. • Reduced mental alertness.
Sulfur Oxides (SO_X)	• Combustion of sulfur-containing fossil fuels. • Smelting of sulfur-bearing metal ores. • Industrial processes.	• Worsening of asthma: increased symptoms, increased medication usage, and emergency room visits.
Lead (Pb)	• Contaminated soil.	• Impaired mental functioning in children. • Learning disabilities in children. • Brain and kidney damage.
Toxic Air Contaminants (TACs)	• Cars and trucks (especially diesels). • Industrial sources, such as chrome platers. • Neighborhood businesses, such as dry cleaners and service stations. • Building materials and products.	• Cancer. • Reproductive and developmental effects. • Neurological effects.

Source: California Air Resources Board (2018).

[1] Ozone is not generated directly by these sources. Rather, chemicals emitted by these precursor sources react with sunlight to form ozone in the atmosphere.

Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRUs) and TRU Generator Sets, and Facilities where TRUs Operate (TRU ATCM). CARB adopted the TRU ATCM in 2004 (and amended it in 2010 and 2011) to reduce diesel PM emissions and resulting health risk from diesel-powered TRUs. On February 24, 2022, CARB adopted amendments to the TRU ATCM (2022 Amendments) to achieve additional emission and health risk reductions from diesel-powered TRUs and increase the use of zero-emission (ZE) technology in the off-road sector. The 2022 Amendments will help meet the State's multiple risk reduction, air quality, and climate goals, as well

as the directive of Executive Order (EO) N-79-20, which set a goal for 100 percent ZE off-road vehicles and equipment in the State by 2035.

The California Air Resources Board Handbook. CARB has developed an Air Quality and Land Use Handbook[13] (CARB Handbook), which is intended to serve as a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process. According to the CARB Handbook, air pollution studies have shown an association between proximity to high traffic roadways and respiratory and other non-cancer health effects. Other studies have shown that diesel exhaust and other cancer-causing chemicals emitted from cars and trucks are responsible for much of the overall cancer risk from airborne toxics in California. The CARB Handbook recommends that county and city planning agencies strongly consider proximity to these sources when finding new locations for "sensitive" land uses such as homes, medical facilities, daycare centers, schools, and playgrounds.

Land use designations with air pollution sources of concern include freeways, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and large gasoline service stations. Key recommendations in the CARB Handbook include taking steps to avoid siting new, sensitive land uses:

- Within 500 feet of a freeway, urban roads with 100,000 vehicles/day or rural roads with 50,000 vehicles/day;
- Within 1,000 feet of a major service and maintenance rail yard;
- Immediately downwind of ports (in the most heavily impacted zones) and petroleum refineries;
- Within 300 feet of any dry-cleaning operation (for operations with two or more machines, provide 500 feet); and
- Within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater).

The CARB Handbook specifically states that its recommendations are advisory and acknowledges land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality-of-life issues.

The recommendations are generalized and do not consider site-specific meteorology, freeway truck percentages, or other factors that influence risk for a particular project site. The purpose of this guidance is to further examine project sites for actual health risk associated with the location of new sensitive land uses.

[13] CARB. 2005. *Air Quality and Land Use Handbook: A Community Health Perspective* (CARB Handbook). April.

4.1.2.4 Regional Regulations

South Coast Air Quality Management District Rules. The SCAQMD has jurisdiction over most air quality matters in the Basin. This area includes all of Orange County, Los Angeles County except for the Antelope Valley, the non-desert portion of western San Bernardino County, and the western and Coachella Valley portions of Riverside County. The SCAQMD is the agency principally responsible for comprehensive air pollution control in the Basin and is tasked with implementing certain programs and regulations required by the CAA and the CCAA. The SCAQMD prepares plans to attain the CAAQS and NAAQS. SCAQMD is directly responsible for reducing emissions from stationary (area and point) sources. The SCAQMD develops rules and regulations, establishes permitting requirements, inspects emissions sources, and enforces such measures though educational programs or fines, when necessary. The following regulations and rules promulgated by SCAQMD are applicable to the proposed project:

- **Regulation IV - Prohibitions:** This regulation sets forth the restrictions for visible emissions, odor nuisance, fugitive dust, various air pollutant emissions, fuel contaminants, start-up/shutdown exemptions, and breakdown events.

    - **Rule 402 - Nuisance:** This rule restricts the discharge of any contaminant in quantities that cause or have a natural ability to cause injury, damage, nuisance, or annoyance to businesses, property, or the public. Future development projects that are implemented in accordance with the proposed zoning and updated land use designations will be required to comply with Rule 402.

    - **Rule 403 - Fugitive Dust:** This rule requires the prevention, reduction, or mitigation fugitive dust emissions from a project site. Rule 403 restricts visible fugitive dust to a project property line, restricts the net PM_{10} emissions to less than 50 micrograms per cubic meter ($\mu g/m^3$) and restricts the tracking out of bulk materials onto public roads. Additionally, Rule 403 requires an applicant to use one or more of the best available control measures (identified in the tables within the rule). Control measures may include adding freeboard to haul vehicles, covering loose material on haul vehicles, watering, using chemical stabilizers, and/or ceasing all activities. Finally, Rule 403 requires that a contingency plan be prepared if so determined by the USEPA. In addition, SCAQMD Rule 403(e), Additional Requirements for Large Operations, includes requirements to provide Large Operation Notification Form 403 N, appropriate signage, additional dust control measures, and employment of a dust control supervisor that has successfully completed the Dust Control training class in the South Coast Air Basin. Future development projects that are implemented in accordance with the proposed zoning and updated land use designations will be required to comply with Rule 403.

- **Regulation XI - Source Specific Standards:** Regulation XI sets emissions standards for different sources.

    - **Rule 1113 - Architectural Coatings:** This rule limits the amount of VOCs from architectural coatings and solvents, which lowers the emissions of odorous compounds. Future

development projects that are implemented in accordance with the proposed zoning and updated land use designations will be required to comply with Rule 1113.

The SCAQMD is responsible for demonstrating regional compliance with ambient air quality standards but has limited direct involvement in reducing emissions from fugitive, mobile, and natural sources. To that end, the SCAQMD works cooperatively with CARB, the Southern California Association of Governments (SCAG), county transportation commissions, local governments, and other federal and State government agencies. It has responded to this requirement by preparing a series of AQMPs to meet the CAAQS and NAAQS. SCAQMD and SCAG are responsible for formulating and implementing the AQMP for the Basin. The main purpose of an AQMP is to bring the area into compliance with federal and State air quality standards. Every several years, SCAQMD prepares a new AQMP, updating the previous plan and the 20-year horizon.[14] The Final 2022 Air Quality Management Plan is the currently adopted AQMP. Key elements of the Final 2022 AQMP include:

- Calculating and taking credit for co-benefits from other planning efforts (e.g., climate, energy, and transportation)
- A strategy with fair-share emission reductions at the federal, State, and local levels
- Investment in strategies and technologies meeting multiple air quality objectives
- Seeking new partnerships and significant funding for incentives to accelerate deployment of zero-emission and near-zero emission technologies
- Enhanced socioeconomic assessment, including an expanded environmental justice analysis
- Attainment of the 24-hour $PM_{2.5}$ standard in 2019 with no additional measures
- Attainment of the annual $PM_{2.5}$ standard by 2025 with implementation of a portion of the O_3 strategy
- Attainment of the 1-hour O_3 standard by 2022 with no reliance on “black box” future technology (CAA Section 182(e)(5) measures)

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 emissions technologies, when cost-effective and feasible, and low nitrogen oxides (NO_x) technologies in other applications), best management practices, co-benefits from existing programs (e.g., climate and energy efficiency), incentives, and other CAA measures to achieve the 2015 8-hour ozone standard.

[14] South Coast Air Quality Management District (SCAQMD). 2016a. *Final 2016 Air Quality Management Plan*. March.

Southern California Association of Governments. SCAG is a council of governments for Los Angeles, Orange, Riverside, San Bernardino, Imperial, and Ventura counties. It is a regional planning agency and serves as a forum for regional issues relating to transportation, the economy and community development, and the environment. SCAG is the federally designated Metropolitan Planning Organization (MPO) for the majority of the Southern California region and is the largest MPO in the nation. With regard to air quality planning, SCAG prepares the Regional Transportation Plan (RTP) and Regional Transportation Improvement Program (RTIP), which address regional development and growth forecasts and form the basis for the land use and transportation control portions of the AQMP and are used in the preparation of the air quality forecasts and consistency analysis included in the AQMP. The RTP, RTIP, and AQMP are based on projections originating within local jurisdictions.

Although SCAG is not an air quality management agency, it is responsible for developing transportation, land use, and energy conservation measures that affect air quality. SCAG's Regional Comprehensive Plan (RCP) provides growth forecasts that are used in the development of air quality-related land use and transportation control strategies by the SCAQMD. The RCP is a framework for decision-making for local governments, assisting them in meeting federal and State mandates for growth management, mobility, and environmental standards, while maintaining consistency with regional goals regarding growth and changes. Policies within the RCP include consideration of air quality, land use, transportation, and economic relationships by all levels of government.

SCAG adopted the 2024–2050 RTP/Sustainable Communities Strategy (SCS) (collectively called Connect SoCal) on April 4, 2024. Connect SoCal is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. Connect SoCal is an important planning document for the region, allowing project sponsors to qualify for federal funding and takes into account operations and maintenance costs, to ensure reliability, longevity, and cost effectiveness.

Using growth forecasts and economic trends, the RTP provides a vision for transportation throughout the region for the next 20 years. It considers the role of transportation in the broader context of economic, environmental, and quality-of-life goals for the future, identifying regional transportation strategies to address mobility needs. The SCS is a required element of the RTP, which integrates land use and transportation strategies to achieve CARB emissions reduction targets. The inclusion of the SCS is required by SB 375, which was enacted to reduce GHG emissions from automobiles and light trucks through integrated transportation, land use, housing, and environmental planning. The RTP/SCS would successfully achieve and exceed the GHG emission-reduction targets set by the CARB by achieving an 8 percent reduction by 2020, an 18 percent reduction by 2035, and a 21 percent reduction by 2040 compared to the 2005 level on a per capita basis. This RTP/SCS also meets criteria pollutant emission budgets set by the USEPA.

4.1.2.5 Local Regulations

City of Cypress General Plan. The Air Quality Element of the City's General Plan is intended to protect public health and welfare by implementing measures that allow the Basin to attain federal and State air quality standards. To achieve this goal, the Air Quality Element sets forth a number of programs to reduce current pollutant emissions and to require new development to include

measures to comply with air quality standards. The Air Quality Element identifies goals and policies to reduce the generation of pollutants. It also recognizes that air quality is a regional issue affecting the entire Basin. Thus, most of the goals and policies in the Air Quality Element apply generally to the City but not necessarily to individual development projects.

4.1.3 Existing Environmental Setting

The City is part of the South Coast Air Basin and is under the jurisdiction of SCAQMD. Background information about air pollutants and health effects, climate, meteorological conditions, and regional air quality conditions in the Basin and local air quality conditions in the vicinity of the project site are provided below.

4.1.3.1 South Coast Air Basin

The SCAQMD was created by the 1977 Lewis-Presley Air Quality Management Act, which merged four county air pollution control bodies into one regional district. Under the Act, the SCAQMD is responsible for bringing air quality in areas under its jurisdiction into conformity with federal and State air quality standards. As previously stated, the project site is located within the Basin, a 6,745-square-mile subregion of the SCAQMD, which includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The Basin is bounded by the San Gabriel, San Bernardino, and San Jacinto mountains to the north and east and by the Pacific Ocean to the south and west.

Air Pollutants and Health Effects. As previously discussed, both NAAQS and CAAQS have been established for six criteria air pollutants: CO, O_3, NO_2, SO_2, Pb, PM_{10}, and $PM_{2.5}$. In addition, the State has set standards for SO_4^{2-}, H_2S, C_2H_3Cl, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. Two criteria pollutants, O_3 and NO_2, are considered regional pollutants because they (or their precursors) affect air quality on a regional scale. Pollutants such as CO, SO_2, and Pb are considered local pollutants that tend to accumulate in the air locally.

The primary pollutants of concern in the City are O_3, CO, and $PM_{2.5}$. Significance thresholds established by an air quality district are used to manage total regional and local emissions within an air basin based on the air basin's attainment status for criteria pollutants. These emission thresholds were established for individual development projects that would contribute to regional and local emissions and could adversely affect or delay the air basin's projected attainment target goals for nonattainment criteria pollutants.

Because of the conservative nature of the significance thresholds and the basin-wide context of individual development project emissions, there is no direct correlation between a single project and localized air quality-related health effects. One individual project that generates emissions exceeding a threshold does not necessarily result in adverse health effects for residents in the project vicinity. This condition is especially true when the criteria pollutants exceeding thresholds are those with regional effects, such as ozone precursors like nitrogen oxides (NO_X) and ROGs.

Further, by its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to by itself result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a

project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant. In developing thresholds of significance for air pollutants, the air quality districts have considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions.

Occupants of facilities such as schools, daycare centers, parks and playgrounds, hospitals, and nursing and convalescent homes are considered to be more sensitive than the general public to air pollutants because these population groups have increased susceptibility to respiratory disease. Persons engaged in strenuous work or exercise also have increased sensitivity to poor air quality. Residential areas are considered more sensitive to air quality conditions, compared to commercial and industrial areas, because people generally spend longer periods of time at their residences, with greater associated exposure to ambient air quality conditions. Recreational uses are also considered sensitive compared to commercial and industrial uses due to greater exposure to ambient air quality conditions associated with exercise. These populations are referred to as sensitive receptors.

4.1.3.2 Existing Climate and Air Quality

The following provides a discussion of the local and regional air quality and climate in the City of Cypress.

Climate/Meteorology. Air quality in the City of Cypress is not only affected by various emission sources (e.g., mobile and industry), but also by atmospheric conditions (e.g., wind speed, wind direction, temperature, and rainfall). The combination of topography, low mixing height, abundant sunshine, and emissions from the second-largest urban area in the United States gives the Basin some of the worst air pollution in the nation.

The annual average temperature varies little throughout the Basin, ranging from the low to middle 60s degrees Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The climatological station closest to the City is the Anaheim station.[15] The monthly average maximum temperature recorded at this station ranged from 69.7°F in December to 87.1°F in August, with an annual average maximum of 77.4°F. The monthly average minimum temperature recorded at this station ranged from 46.9°F in December to 64.5°F in August, with an annual average minimum of 55.4°F. These levels are representative of the City.

The majority of annual rainfall in the Basin occurs between November and April. Summer rainfall is minimal and is generally limited to scattered thundershowers in coastal regions and slightly heavier showers in the eastern portion of the Basin and along the coastal side of the mountains. Average monthly rainfall at the Anaheim station varied from 0.01 inch in August to 3.47 inches in February, with an annual total of 14.09 inches. Patterns in monthly and yearly rainfall totals are unpredictable due to fluctuations in the weather.

[15] Western Regional Climate Center. Recent Climate in the West. Website: http://www.wrcc.dri.edu, (accessed May 13, 2024).

The Basin experiences a persistent temperature inversion (increasing temperature with increasing altitude) as a result of the Pacific high. This inversion limits the vertical dispersion of air contaminants, holding them relatively near the ground. As the sun warms the ground and the lower air layer, the temperature of the lower air layer approaches the temperature of the base of the inversion (upper) layer until the inversion layer finally breaks, allowing vertical mixing with the lower layer. This phenomenon is observed in mid-afternoon to late afternoon on hot summer days when the air appears to clear up suddenly. Winter inversions frequently break by midmorning.

Winds in the City blow predominantly from the south-southwest, with relatively low velocities. Wind speeds in the City average about 5 miles per hour (mph). Summer wind speeds average slightly higher than winter wind speeds. Low average wind speeds, together with a persistent temperature inversion, limit the vertical dispersion of air pollutants throughout the Basin. Strong, dry, north or northeasterly winds, known as Santa Ana winds, occur during the fall and winter months, dispersing air contaminants. The Santa Ana conditions tend to last for several days at a time.

The combination of stagnant wind conditions and low inversions produces the greatest pollutant concentrations. On days of no inversion or high wind speeds, ambient air pollutant concentrations are the lowest. During periods of low inversions and low wind speeds, air pollutants generated in urbanized areas are transported predominantly onshore into Riverside and San Bernardino counties. In the winter, the greatest pollution problems are CO and NO_X because of extremely low inversions and air stagnation during the night and early morning hours. In the summer, the longer daylight hours and brighter sunshine combine to cause a reaction between hydrocarbons and NO_x to form photochemical smog. Smog is a general term that is naturally occurring fog that has become mixed with smoke or pollution. In this context it is better described as a form of air pollution produced by the photochemical reaction of sunlight with pollutants that have been released into the atmosphere, especially by automotive emissions.

Attainment Status. CARB is required to designate areas of the State as attainment, nonattainment, or unclassified for all State standards. An attainment designation for an area signifies that pollutant concentrations did not violate the standard for that pollutant in that area. A nonattainment designation indicates that a pollutant concentration violated the standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria. An unclassified designation signifies that data do not support either an attainment or nonattainment status. The CCAA divides districts into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category.

The EPA designates areas for O_3, CO, and NO_2 as one of the following: does not meet the primary standards, or cannot be classified, or better than national standards. For SO_2, areas are designated as: does not meet the primary standards, does not meet the secondary standards, cannot be classified, or better than national standards. On February 2024, the EPA issued a final revised standard for $PM_{2.5}$ to lower the primary standard from 12 µg/m^3 to 9 µg/m^3. The EPA will issue final area designations in February 2026. **Table 4.1.3** provides a summary of the attainment status for the Basin with respect to both National and California Ambient Air Quality Standards (NAAQS and CAAQS, respectively).

Table 4.1.3: South Coast Air Basin Attainment Status

Pollutant	State	Federal
O_3 1 hour	Nonattainment	Extreme Nonattainment
O_3 8 hour	Nonattainment	Extreme Nonattainment
PM_{10}	Nonattainment	Attainment/Maintenance
$PM_{2.5}$	Nonattainment	Serious Nonattainment
CO	Attainment	Attainment/Maintenance
NO_2	Attainment	Attainment/Maintenance
SO_2	N/A	Attainment/Unclassified
Lead	Attainment	Partial Nonattainment[1]
All others	Attainment/Unclassified	Attainment/Unclassified

Source: South Coast Air Quality Management District (2016b).

[1] Partial Nonattainment designation – Los Angeles County portion of Basin only for near-source monitors. Expect redesignation to attainment based on current monitoring data.

CO = carbon monoxide
N/A = not applicable
NO_2 = nitrogen dioxide
O_3 = ozone
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
SO_2 = sulfur dioxide

Air Quality Monitoring Results. Air quality monitoring stations are located throughout the nation and are maintained by the local air pollution control district and State air quality regulating agencies. The SCAQMD, together with the CARB, maintains ambient air quality monitoring stations in the Basin. The air quality monitoring station closest to the City is the station at 1630 West Pampas Lane in Anaheim.

Pollutant monitoring results for 2021, 2022, and 2023 at the Anaheim monitoring station are shown in **Table 4.1.4.** Monitoring indicates that air quality in the vicinity of the City has generally been good. As indicated by the monitoring results, the federal PM_{10} standard was not exceeded during this 3-year period. The State PM_{10} standard was exceeded once in 2021, and an unknown number of times in 2022 and 2023. The federal $PM_{2.5}$ standard had 10 exceedances in 2021, no exceedances in 2022, and an unknown number of exceedances in 2023. The State 1-hour and 8-hour ozone standards had no exceedances in 2021 and an unknown number of exceedances in 2022 and 2023. The federal 8-hour standards had no exceedances in 2021 and one exceedance in 2022 and 2023. The CO and NO_2 standards were not exceeded in this area during this 3-year period. SO_2 data were not available from 2021 to 2023 at air quality monitoring stations in Orange County.

4.1.4 Methodology

The proposed project would result in criteria pollutant emissions from construction and operational sources. Construction activities would generate emissions at the project site from off-road construction equipment, and on road construction-related truck hauling, vendor deliveries, and worker commuting. Project-related operational activities would generate emissions from vehicle traffic and miscellaneous sources at the project site, such as natural gas combustion associated with heating, and use of landscaping equipment. This analysis used the California Emissions Estimator Model (CalEEMod), Version 2022.1, to quantify criteria pollutant emissions for both construction and operation of the proposed project.

Table 4.1.4: Ambient Air Quality in the Project Vicinity

Pollutant	Standard	2021	2022	2023
Carbon Monoxide (CO)[1]				
Maximum 1-hour concentration (ppm)		2.1	2.4	2.5
Number of days exceeded:	State: > 20 ppm	0	0	0
	Federal: > 35 ppm	0	0	0
Maximum 8-hour concentration (ppm)		1.5	1.4	1.6
Number of days exceeded:	State: > 9 ppm	0	0	0
	Federal: > 9 ppm	0	0	0
Ozone (O_3)[1]				
Maximum 1-hour concentration (ppm)		0.089	0.102	0.089
Number of days exceeded:	State: > 0.09 ppm	0	ND	ND
Maximum 8-hour concentration (ppm)		0.068	0.076	0.076
Number of days exceeded:	State: > 0.07 ppm	0	ND	ND
	Federal: > 0.07 ppm	0	1	1
Coarse Particulates (PM_{10})[1]				
Maximum 24-hour concentration (µg/m^3)		63.6	67.0	97.0
Number of days exceeded:	State: > 50 µg/m^3	1	ND	ND
	Federal: > 150 µg/m^3	0	0	0
Annual arithmetic average concentration (µg/m^3)		23.2	ND	ND
Exceeded for the year:	State: > 20 µg/m^3	Yes	ND	ND
	Federal: > 50 µg/m^3	No	ND	ND
Fine Particulates ($PM_{2.5}$)[1]				
Maximum 24-hour concentration (µg/m^3)		54.4	33.1	45.6
Number of days exceeded:	Federal: > 35 µg/m^3	10	0	ND
Annual arithmetic average concentration (µg/m^3)		11.5	9.9	9.5
Exceeded for the year:	State: > 12 µg/m^3	No	No	No
	Federal: > 15 µg/m^3	No	No	No
Nitrogen Dioxide (NO_2)[1]				
Maximum 1-hour concentration (ppm)		0.067	0.053	0.051
Number of days exceeded:	State: > 0.250 ppm	0	0	0
Annual arithmetic average concentration (ppm)		0.012	0.012	0.010
Exceeded for the year:	Federal: > 0.053 ppm	No	No	No
Sulfur Dioxide (SO_2)[1]				
Maximum 1-hour concentration (ppm)		ND	ND	ND
Number of days exceeded:	State: > 0.25 ppm	ND	ND	ND
Maximum 24-hour concentration (ppm)		ND	ND	ND
Number of days exceeded:	State: > 0.04 ppm	ND	ND	ND
	Federal: > 0.14 ppm	ND	ND	ND
Annual arithmetic average concentration (ppm)		ND	ND	ND
Exceeded for the year:	Federal: > 0.030 ppm	ND	ND	ND

Sources: CARB (2021) and USEPA (2021).
[1] Data taken from the Anaheim monitoring station at 1630 West Pampas Lane.
CARB = California Air Resources Board
ND = No data. There were insufficient (or no) data to determine the value.
ppm = parts per million
USEPA = United States Environmental Protection Agency

CalEEMod provides a platform to calculate both construction emissions and operational emissions from a project. It calculates both the daily maximum and annual average emissions for criteria pollutants as well as total or annual greenhouse gas (GHG) emissions. The model also provides default values for water and energy use. Specifically, the model performs the following calculations:

- Short-term construction emissions associated with demolition, site preparation, grading, building, architectural coating (painting), and paving from off-road construction equipment; on-road mobile equipment associated with workers, vendors, delivery, and hauling; fugitive dust associated with grading, demolition, truck loading, and roads; and emissions of volatile organic compounds (VOCs) from architectural coating and paving.

- Operational emissions, such as on-road mobile vehicle traffic generated by the land uses, fugitive dust associated with roads, volatile emissions of reactive organic gases (ROGs) from architectural coatings, off-road emissions from landscaping equipment, volatile emissions of ROGs from consumer products and cleaning supplies, natural gas usage in the buildings, electricity usage in the buildings, water usage by the land uses, and solid waste disposal by the land uses. To assess potential operational impacts under a worst-case scenario (from an emissions perspective), the analysis assumed that 100 percent of the warehouse square footage would be refrigerated and that 100 percent of the trucks accessing the project site would be refrigerated trucks.

In addition, CalEEMod contains default values and existing regulation methodologies to use in each specific local air quality district region. Appropriate statewide default values can be used if regional default values are not defined. This analysis used project-specific inputs and relevant model default factors for the Orange County area, consistent with SCAQMD requirements. CalEEMod was used to calculate project-related construction and operational emissions of criteria pollutants. The CalEEMod output is provided in **Appendix C** of this Draft EIR.

4.1.5 Thresholds of Significance

The thresholds for air quality impacts used in this analysis are consistent with Appendix G of the State CEQA Guidelines and the City's Initial Study/Environmental Checklist. The proposed project may be deemed to have a significant impact with respect to 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 nonattainment 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?

As stated in Appendix G of the State CEQA Guidelines, where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied

upon to make determinations about a project's impacts. This Draft EIR uses the adopted thresholds of the SCAQMD, the local air quality management district.

4.1.5.1 Regional Emissions Thresholds

SCAQMD has established daily emissions thresholds for construction and operation of a proposed project in the Basin. The emissions thresholds were established based on the attainment status of the Basin with regard to air quality standards for specific criteria pollutants. Because the concentration standards were set at a level that protects public health with an adequate margin of safety, these emissions thresholds are regarded as conservative and would overstate an individual project's contribution to health risks.

Table 4.1.5, below, lists the CEQA significance thresholds for the construction and operational emissions established for the Basin.

Table 4.1.5: Regional Thresholds for Construction and Operational Emissions

Emissions Source	Pollutant Emissions Threshold (lbs/day)					
	VOC	NO_x	CO	PM_{10}	$PM_{2.5}$	SO_x
Construction	75	100	550	150	55	150
Operations	55	55	550	150	55	150

Source: SCAQMD. Air Quality Significance Thresholds. Website: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf (accessed June 2024).

CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
SCAQMD = South Coast Air Quality Management District
SO_X = sulfur oxides
VOC = volatile organic compounds

Projects in the Basin with construction- or operation-related emissions that exceed any of their respective emission thresholds would be considered significant under SCAQMD guidelines. These thresholds, which SCAQMD developed and that apply throughout the Basin, apply as both project and cumulative thresholds. If a project exceeds these standards, it is considered to have a project-specific and cumulative impact.

4.1.5.2 Localized Impacts

The SCAQMD published its *Final Localized Significance Threshold Methodology* in July 2008, recommending that all air quality analyses include an assessment of air quality impacts to nearby sensitive receptors.[16] This guidance was used to analyze potential localized air quality impacts associated with construction of the proposed project. Localized significance thresholds (LSTs) are developed based on the size or total area of the emission source, the ambient air quality in the source receptor area, and the distance between the project and the nearest sensitive receptor. The SCAQMD defines structures that house persons (e.g., children, the elderly, persons with pre-existing respiratory or cardiovascular illness, and athletes and others who engage in frequent exercise) or

[16] South Coast Air Quality Management District (SCAQMD). 2008. *Final Localized Significance Threshold Methodology.* July. Website: http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf (accessed May 13, 2024).

places where they gather as sensitive receptors (i.e., residences, schools, playgrounds, child-care centers, convalescent centers, retirement homes, and athletic fields).

LSTs are based on the ambient concentrations of that pollutant within the project Source Receptor Area (SRA) and the distance to the nearest sensitive receptor. For the proposed project, the appropriate SRA for the LST is the Central Orange County area (SRA 17). SCAQMD provides LST screening tables for 25-, 50-, 100-, 200-, and 500-meter source-receptor distances. While the project site is approximately 8.53 acres, based on the anticipated construction equipment and grading and ground-disturbing activities, it is assumed that the maximum daily disturbed area for the proposed project would be 3.5 acres.

The nearest sensitive receptors for air quality emissions include a medical office located north of the project site within 960 feet. Other sensitive receptors include the residential homes located north of the project site at approximately 1,398 feet from the project site boundary line. Therefore, the LST for a 3.5-acre site at 960 ~~1,398~~ feet (~~426~~ 293 meters) were derived by interpolation.[17] The LST analysis followed the guidance of the SCAQMD for evaluating sensitive receptors, discussed in further detail in this analysis. **Table 4.1.6** lists the LST thresholds that apply during project construction and operation. To be conservative, this LST analysis assumes all area, stationary, and energy source emissions would occur on site, and 5 percent of the project-related new mobile sources, which is an estimate of the amount of project-related on-site vehicle and truck travel, would occur on site. These emissions would be compared against the operational threshold.

Table 4.1.6: SCAQMD LST Thresholds (lbs/day)

Emissions Source Category	NO_X	CO	PM_{10}	$PM_{2.5}$
Construction (3.5-acre, 426-meter distance)	191.0 ~~213.0~~	4,921.0 ~~7,166.0~~	109.0 ~~153.0~~	51.0 ~~83.0~~
Operations (3.5-acre, 426-meter distance)	191.0 ~~213.0~~	4,921.0 ~~7,166.0~~	27.0 ~~37.0~~	12.0 ~~20.0~~

Source: Final Localized Significance Threshold Methodology (SCAQMD 2008).
Note: SRA 17— Central Orange County, 3.5 acres, receptors at 960 ~~1,398~~ feet (293 ~~426~~ meters).
CO = carbon monoxide
lbs/day = pounds per day
LST = localized significance threshold
NO_x = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SCAQMD = South Coast Air Quality Management District
SRA = source receptor area

4.1.5.3 Local Microscale Concentration Standards

The significance of localized project impacts under CEQA depends on whether ambient CO levels in the vicinity of the project are above or below State and federal CO standards. Because ambient CO levels are below the standards throughout the Basin, a project would be considered to have a significant CO impact if project emissions result in an exceedance of one or more of the 1-hour or 8-hour standards. The following are applicable local emission concentration standards for CO:

[17] SCAQMD. n.d. Fact Sheet for Applying CalEEMod to Localized Significance Thresholds. Website: http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/caleemod-guidance.pdf (accessed May 13, 2024).

- California State 1-hour CO standard of 20 parts per million (ppm)
- California State 8-hour CO standard of 9 ppm

4.1.6 Project Impacts

Threshold AQ-1: Would the project conflict with or obstruct implementation of the applicable air quality plan?

Impact AQ-1: Less Than Significant Impact. An AQMP describes air pollution control strategies to be undertaken by a city or county in a region classified as a nonattainment area to meet the requirements of the federal Clean Air Act. The main purpose of an AQMP is to bring an area into compliance with the requirements of federal and State ambient air quality standards (AAQS). The Basin is in nonattainment for the federal and State standards for O_3 and $PM_{2.5}$. In addition, the Basin is in nonattainment for the PM_{10} standard. Therefore, the Basin is classified as a nonattainment area and an AQMP is required. The applicable air quality plan is the SCAQMD's adopted 2022 AQMP.[18] The AQMP is based on regional growth projections developed by the SCAG.

A consistency determination plays an essential role in local agency project review by linking local planning and unique individual projects to the air quality plans. A consistency determination fulfills the CEQA goal of fully informing local agency decision-makers of the environmental costs of the project under consideration at a stage early enough to ensure that air quality concerns are addressed. Only new or amended General Plan elements, Specific Plans, and significantly unique projects need to undergo a consistency review given that the air quality plan strategy is based on projections from local General Plans.

The City's General Plan is consistent with the SCAG Regional Comprehensive Plan Guidelines and the SCAQMD AQMP. Pursuant to the methodology provided in the SCAQMD's *CEQA Air Quality Handbook*, consistency with the Basin 2022 AQMP is affirmed when a project: (1) would not increase the frequency or severity of an air quality standards violation or cause a new violation, and (2) is consistent with the growth assumptions in the AQMP. Consistency review is presented as follows:

1. The proposed project would result in short-term construction and long-term operational pollutant emissions that are all less than the CEQA significance emissions thresholds established by SCAQMD. Therefore, the proposed project would not result in an increase in the frequency or severity of an air quality standards violation or cause a new air quality standards violation.

2. The *CEQA Air Quality Handbook* indicates that consistency with AQMP growth assumptions must be analyzed for new or amended General Plan elements, Specific Plans, and significant projects. Significant projects include airports, electrical generating facilities, petroleum and gas refineries, designation of oil drilling districts, water ports, solid waste disposal sites, and offshore drilling facilities. As discussed in Chapter 3.0, Project Description, the proposed project would not include or require any amendments to the City's General Plan or City's Zoning Ordinance.

[18] South Coast Air Quality Management District (SCAQMD). 2022. *2022 Air Quality Management Plan*. Adopted December 2, 2022.

However, the proposed project is located within Planning Area 1 of the McDonnell Specific Plan, which is currently designated for general office uses. As such, the proposed project would require an amendment to the McDonnell Specific Plan to allow light industrial uses in the eastern portion of Planning Area 1, and removal of the maximum developable area requirement while retaining the 1.0:1 FAR to maintain consistency with the General Plan.

In order to determine the proposed project's consistency with the 2022 AQMP, the project must be consistent with the AQMP growth assumptions, which are based, in part, on assumptions made by local planning agencies in SCAG's RTP/SCS regarding population, housing, and growth trends. According to SCAG's 2024–2050 RTP/SCS, the City's households and employment are forecast to increase by approximately 3,900 households and 2,000 jobs, respectively, between 2019 and 2050 and would total approximately 20,300 households and 28,100 jobs by 2050.[19] The proposed project would include a 191,394-square-foot light industrial building, parking, landscaping, and associated improvements which is estimated to generate approximately 93 employees. It is anticipated that the additional 93 employees would fall within the 28,100 projected jobs for the City. Therefore, it is assumed that the project's labor demand would not substantially increase employment projections in the City. As such, the project would be consistent with SCAG's growth assumptions for new job growth in the region as identified in the RTP/SCS.

Additionally, based on the proposed project size (191,394 square feet), the proposed project is not considered a project of statewide, regional, or areawide significance (e.g., large-scale projects such as airports, electrical generating facilities, petroleum and gas refineries, residential developments of more than 500 dwelling units, and shopping centers or business establishments employing more than 1,000 persons or encompassing more than 500,000 square feet of floor space) as defined in the California Code of Regulations (CCR) (Title 14, Division 6, Chapter 3, Article 13, Section 15206(b)). Because the proposed project would not be defined as a regionally significant project under CEQA, it does not meet the SCAG's Intergovernmental Review criteria.

Based on the consistency analysis presented above, the proposed project would be consistent with the regional AQMP. Therefore, the proposed project would not conflict with or obstruct implementation of the applicable air quality plan. Impacts would be less than significant, and no mitigation is required.

Threshold AQ-2: Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard?

Impact AQ-2: Less Than Significant Impact. the Basin is currently designated as nonattainment for the federal and State standards for O_3 and $PM_{2.5}$. In addition, the Basin is in nonattainment for the PM_{10} standard. The Basin's nonattainment status is attributed to the region's development history. Past, present, and future development projects contribute to the region's adverse air quality

[19] Southern California Association of Governments (SCAG). 2024. Connect SoCal 2024–2050 Regional Transportation Plan/Sustainable Communities Strategy. Website: https://scag.ca.gov/sites/main/files/file-attachments/23-2987-tr-demographics-growth-forecast-final-040424.pdf?1712261839 (accessed May 2024).

impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in nonattainment of AAQS. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant.

In developing thresholds of significance for air pollutants, the SCAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified SCAQMD significance thresholds identified above in **Table 4.1.6**, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. Therefore, additional analysis to assess cumulative impacts is not necessary. The following analysis assesses the potential project-level air quality impacts associated with construction and operation of the proposed project.

Construction Emissions. During construction, short-term degradation of air quality may occur due to the release of particulate matter emissions (i.e., fugitive dust) generated by demolition, grading, building construction, paving, and other activities. Emissions from construction equipment are also anticipated and would include CO, NO_x, VOCs, directly emitted $PM_{2.5}$ or PM_{10}, and TACs such as diesel exhaust particulate matter.

Construction activities associated with the proposed project would include demolition, grading, site preparation, building construction, architectural coating, and paving activities. Construction-related effects on air quality from the proposed project would be greatest during the site preparation phase due to the disturbance of soils. If not properly controlled, these activities would temporarily generate particulate emissions. Sources of fugitive dust would include disturbed soils at the construction site. Unless properly controlled, vehicles leaving the site would deposit dirt and mud on local streets, which could be an additional source of airborne dust after it dries. PM_{10} emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM_{10} emissions would depend on soil moisture, silt content of soil, wind speed, and amount of operating equipment. Larger dust particles would settle near the source, whereas fine particles would be dispersed over greater distances from the construction site.

Water or other soil stabilizers can be used to control dust, resulting in emission reductions of 50 percent or more. SCAQMD has established Rule 403: Fugitive Dust, which would require the Applicant to implement measures that would reduce the amount of particulate matter generated during the construction period. The Rule 403 measures that were incorporated in this analysis include:

- Water active sites at least three times daily (locations where grading is to occur shall be thoroughly watered prior to earthmoving).

- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 2 feet (0.6 meter) of freeboard (vertical space between the top of the load and the top of the trailer) in accordance with the requirements of California Vehicle Code Section 23114.

- Reduce traffic speeds on all unpaved roads to 15 miles per hour or less.

In addition to dust-related PM_{10} emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, sulfur oxides (SO_x), NO_x, VOCs and some soot particulate ($PM_{2.5}$ and PM_{10}) in exhaust emissions. If construction activities were to increase traffic congestion in the area, CO and other emissions from traffic would increase slightly while those vehicles idle in traffic. These emissions would be temporary in nature and limited to the immediate area surrounding the construction site.

Construction emissions were estimated for the proposed project using the CalEEMod. As stated in Chapter 3.0, Project Description, the project would construct a new light industrial building totaling 191,394 square feet, including 181,061 square feet of warehouse space and 10,333 square feet of office space, which was included in CalEEMod. This analysis assumes that 100 percent of the warehouse space would be refrigerated and that trucks accessing the site would also be refrigerated. The analysis also assumes that construction is anticipated to occur over a 11-month duration, with construction beginning in November 2024 and completion expected in October 2025. In addition, the proposed project would require the export of approximately 940 cubic yards of soil, which was included in CalEEMod. Other precise details of construction activities are unknown at this time; therefore, default settings (e.g., construction equipment and worker trips) from CalEEMod were used. Use of Tier 2 construction equipment was included in the CalEEMod modeling. **Table 4.1.6** identifies the maximum daily emissions associated with construction activities during each construction phase.

As shown in **Table 4.1.7**, construction emissions associated with the proposed project would not exceed the SCAQMD's thresholds for VOCs, NO_X, CO, SO_X, $PM_{2.5}$, and PM_{10}. Therefore, construction of the proposed project would not result in a cumulatively considerable increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or State AAQS. Impacts would be less than significant, and no mitigation is required.

Table 4.1.7: Short-Term Regional Construction Emissions

Construction Phase	Maximum Daily Regional Pollutant Emissions (lbs/day)					
	VOCs	NO_X	CO	SO_X	Total PM_{10}	Total $PM_{2.5}$
Demolition	0.8	27.5	20.1	<0.1	4.0	1.3
Site Preparation	1.1	39.9	29.2	<0.1	9.0	5.0
Grading	0.8	23.8	18.7	<0.1	3.8	2.1
Building Construction	0.9	20.3	19.3	<0.1	2.0	1.0
Paving	1.1	13.4	11.3	<0.1	0.8	0.6
Architectural Coating	24.1	1.2	1.7	<0.1	0.3	0.1
Peak Daily Emissions	**25.2**	**39.9**	**29.2**	**<0.1**	**9.0**	**5.0**
SCAQMD Threshold	**75.0**	**100.0**	**550.0**	**150.0**	**150.0**	**55.0**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by LSA (June 2024).
Note: Maximum emissions of VOCs occurred during the overlapping building construction and architectural coating phases
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SCAQMD = South Coast Air Quality Management District
SO_X = sulfur oxides
VOCs = volatile organic compounds

Operational Air Quality Impacts. Long-term air pollutant emissions associated with operation of the proposed project include emissions from area, energy, and mobile sources. Area-source emissions include architectural coatings, consumer products, and landscaping. Energy-source emissions result from activities in buildings that use electricity and natural gas. Mobile-source emissions are from vehicle trips associated with operation of the proposed project.

Typically, area source emissions consist of direct sources of air emissions located at the project site, including architectural coatings and the use of landscape maintenance equipment. Area source emissions associated with the project would include emissions from the use of landscaping equipment and consumer products.

Energy-source emissions result from activities in buildings for which natural gas is used. The quantity of emissions is the product of usage intensity (i.e., the amount of natural gas) and the emission factor of the fuel source. The emission factor is determined by the fuel source, with cleaner energy sources, like renewable energy, producing fewer emissions than conventional sources. The proposed project would comply with the latest California Green Building Standards Code.

Mobile source emissions are generated by the vehicle trips associated with project operations. PM_{10} emissions result from running exhaust, tire and brake wear, and the entrainment of dust into the atmosphere from vehicles traveling on paved roadways. Entrainment of PM_{10} occurs when vehicle tires pulverize small rocks and pavement and the vehicle wakes generate airborne dust. The contribution of tire and brake wear is small compared to the other particulate matter emission processes. Additionally, gasoline-powered engines have small rates of particulate matter emissions compared with diesel-powered vehicles.

Long-term operation emissions associated with the proposed project were calculated using CalEEMod. The proposed project analysis was conducted using land use codes *Refrigerated Warehouse No-Rail,* and *Parking Lot*. Trip generation rates used in CalEEMod for the proposed project were based on the project's trip generation estimates identified in the proposed project's Traffic Analysis (provided in **Appendix E** of this Draft EIR).[20] The proposed project would generate a total of 406 average daily trips (ADT), including 262 passenger vehicle trips, 50 two-axle truck trips, 16 three-axle truck trips, and 78 four-axle truck trips, which was included in CalEEMod. This analysis assumes that the four+-axle truck trips would travel approximately 40 miles. To be conservative, separate CalEEMod analyses were prepared for the operational analysis for the proposed project. One CalEEMod run evaluated operational and vehicle trip emissions and another CalEEMod run evaluated four+-axle truck trip emissions. In addition, it was conservatively assumed that trucks of all sizes would have diesel-powered transportation refrigerated units (TRUs). As a conservative assumption, the TRUs were modeled to be operational for up to 15 minutes per day. To be sure, 15 minutes is a conservative estimation of operational time for TRUs, as it represents a three-times exceedance of CARB's anti-idling rules, which prohibit idling for more than 5 minutes.[21] Moreover, truck operators will have access to plug-in power to operate the TRUs and will be incentivized to do

[20] Urban Crossroads. 2023. *Goodman Commerce Center Traffic Analysis*. November 21, 2023.

[21] CARB. 2004. Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling. July 22. Website: https://ww2.arb.ca.gov/our-work/programs/atcm-to-limit-vehicle-idling/about (accessed July 2024).

so based on their own fuel costs and compliance with the CARB TRU ATCM. However, to be conservative, the 15-minute runtime assumption does not take into account plugging into electric power sources. When project-specific data were not available, default assumptions from CalEEMod were used to estimate project emissions.

Long-term operational emissions associated with the existing uses were also evaluated in CalEEMod. The project site is developed with an existing 150,626-square-foot building. For purposes of analysis, and as described in Chapter 3, Project Description, the project's Traffic Analysis conservatively assumes that 37,657 square feet (25 percent) of the existing building was occupied with office uses.

The long-term operational emissions associated with the proposed project are shown in **Table 4.1.8**.

Table 4.1.8: Project Operational Emissions

Emission Type	Pollutant Emissions (lbs/day)					
	VOCs	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Existing Uses Operational Emissions						
Mobile Sources	1.4	1.1	11.0	<0.1	2.2	0.6
Area Sources	1.2	<0.1	1.6	<0.1	<0.1	<0.1
Energy Sources	<0.1	0.3	0.2	<0.1	<0.1	<0.1
Total Existing Emissions	**2.6**	**1.4**	**12.8**	**<0.1**	**2.2**	**0.6**
Proposed Project Operational Emissions						
Mobile Sources – Vehicles and Light Duty Trucks	0.7	0.7	6.2	<0.1	1.8	0.5
Mobile Sources – Heavy Duty Trucks	0.2	12.6	5.1	0.1	3.0	0.9
Area Sources	6.0	0.1	8.3	<0.1	<0.1	<0.1
Energy Sources	0.1	1.3	1.1	<0.1	0.1	0.1
TRU Truck Emissions	0.9	2.6	0.1	<0.1	<0.1	<0.1
Total Project Emissions	**7.9**	**17.3**	**20.8**	**0.1**	**4.9**	**1.5**
Total Net Emissions	**10.6**	**15.9**	**8.0**	**0.0**	**2.7**	**0.9**
SCAQMD Threshold	**55.0**	**55.0**	**550.0**	**150.0**	**150.0**	**55.0**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by LSA (June 2024).
Note: Some values may not appear to add correctly due to rounding.
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SCAQMD = South Coast Air Quality Management District
SO_X = sulfur oxides
VOCs = volatile organic compounds

The results shown in **Table 4.1.8** indicate operational emissions associated with the proposed project would not exceed the significance criteria for daily VOCs, NO_X, CO, SO_X, PM_{10}, or $PM_{2.5}$ emissions. Therefore, operation of the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or State AAQS. Impacts would be less than significant, and no mitigation is required.

Long-Term Microscale (CO Hot Spot) Analysis. Vehicular trips associated with the proposed project would contribute to congestion at intersections and along roadway segments in the vicinity of the project site. Localized air quality impacts would occur when emissions from vehicular traffic increase as a result of the proposed project. The primary mobile-source pollutant of local concern is CO, a

direct function of vehicle idling time and, thus, of traffic flow conditions. CO transport is extremely limited; under normal meteorological conditions, it disperses rapidly with distance from the source. However, under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels, affecting local sensitive receptors (e.g., residents, schoolchildren, the elderly, and hospital patients). Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service or with extremely high traffic volumes. In areas with high ambient background CO concentrations, modeling is recommended to determine a project's effect on local CO levels.

An assessment of project-related impacts on localized ambient air quality requires that future ambient air quality levels be projected. Existing CO concentrations in the immediate project vicinity are not available. Ambient CO levels monitored at the Anaheim Monitoring Station, located at 1630 W. Pampas Lane in Anaheim, showed a highest recorded 1-hour concentration of 2.5 parts per million (ppm) (the State standard is 20 ppm) and a highest 8-hour concentration of 1.6 ppm (the State standard is 9 ppm) from 2021 to 2023. The highest CO concentrations would normally occur during peak traffic hours; hence, CO impacts calculated under peak traffic conditions represent a worst-case analysis. Reduced speeds and vehicular congestion at intersections result in increased CO emissions.[22]

Based on the trip generation described in Section 4.7, Transportation, the proposed project would generate 406 ADT, with approximately 21 trips occurring in the AM peak hour and approximately 24 trips occurring in the PM peak hour. As the proposed project would not generate 100 or more AM or PM peak hour trips, the proposed project did not meet the criteria for an evaluation of study area intersection or roadway segment levels of service. Overall, truck trips associated with the project are minor relative to the existing traffic on nearby streets that are proximate to residential uses, such as Valley View Street. Furthermore, as described in the project's traffic analysis, truck trips will disperse along roadways, not concentrating trips on a specific roadway. As a result, per hour truck trips associated with the project on surrounding streets proximately located near residential uses are expected to be negligible in the context of overall existing traffic volumes. Finally, Valley View Street is a designated truck route and a "major" roadway in the City's General Plan and, along with Katella Avenue, carries the highest volumes of daily traffic in the City. (General Plan at CIR-4.) Therefore, it is assumed that the addition of the proposed project traffic would not create any significant adverse impacts to nearby intersections or have impacts on sensitive receptors.

Therefore, given the extremely low level of CO concentrations in the vicinity of the project site and the lack of traffic impacts at any intersections, project-related vehicles are not expected to contribute significantly to CO concentrations exceeding the State or federal CO standards. Because no CO hot spot would occur, as identified in the proposed project, there would be no project-related impacts on CO concentrations. Therefore, operation of the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under applicable NAAQS and CAAQS, and impacts would be less than significant.

[22] United States Environmental Protection Agency (USEPA). Outdoor Air Quality Data. 2021. Website: https://www.epa.gov/outdoor-air-quality-data/monitor-values-report (accessed May 13, 2024).

Threshold AQ-3: Would the project expose sensitive receptors to substantial pollutant concentrations?

Impact AQ-3: Less Than Significant Impact. The SCAQMD defines structures that house persons (e.g., children, the elderly, persons with pre-existing respiratory or cardiovascular illness, and athletes and others who engage in frequent exercise) or places where they gather (i.e., residences, schools, playgrounds, child-care centers, convalescent centers, retirement homes, and athletic fields) as sensitive receptors. Sensitive receptors are defined as people who have an increased sensitivity to air pollution or environmental contaminants. The nearest sensitive receptors for air quality emissions include a medical office located north of the project site within 960 feet. Other sensitive receptors include the residential uses approximately 1,398 feet north of the project site boundary line.

As discussed above, LSTs are based on the ambient concentrations of that pollutant within the project SRA and the distance to the nearest sensitive receptor. SCAQMD provides LST screening tables for 25-, 50-, 100-, 200-, and 500-meter source-receptor distances. For the proposed project, the appropriate SRA for the LST is the Central Orange County area (SRA 17). While the project site is approximately 8.53 acres, based on the anticipated construction equipment and grading and ground-disturbing activities, it is assumed that the maximum daily disturbed area for the proposed project would be 3.5 acres. Therefore, the LSTs for a 3.5-acre site at 960 ~~1,398~~ feet (293 ~~426~~ meters) were derived by interpolation.

By design, the localized impacts analysis only includes on-site sources; however, the CalEEMod outputs do not separate on-site and off-site emissions for mobile sources. For a worst-case scenario assessment, the emissions detailed in **Table 4.1.9** assume all area, stationary, and energy source emissions would occur on site, and 5 percent of the project-related new mobile sources, which is an estimate of the amount of project-related on-site vehicle and truck travel, would occur on site. Considering the total trip length included in CalEEMod, the 5 percent assumption is conservative. The results of the LST analysis for both construction and operation of the proposed project are summarized in **Tables 4.1.9** and **4.1.10** below. As shown in **Tables 4.1.9** and **4.1.10,** the proposed project would not result in an exceedance of a SCAQMD LST during project construction or operation. Therefore, the project would not expose sensitive receptors to substantial pollutant concentrations, and impacts would be less than significant. Mitigation is not required.

Threshold AQ-4: Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Impact AQ-4: Less Than Significant Impact.

Construction. Potential odor sources associated with the proposed project may result from Heavy-heavy-duty equipment on the project site during construction would emit odors, primarily from equipment exhaust. In addition, the application of asphalt and architectural coatings during construction activities may result in odors. 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.

Table 4.1.9: Construction Localized Emissions

Emissions Sources	Pollutant Emissions (lbs/day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Construction Emissions	39.9	28.3	8.8	5.0
SCAQMD LST	**191.0 ~~213.0~~**	**4,921.0 ~~7,166.0~~**	**109.0 ~~153.0~~**	**51.0 ~~83.0~~**
Significant Emissions?	**No**	**No**	**No**	**No**

Source: Compiled by LSA (October 2024).
Note: SRA 17— Central Orange County, 3.5 acres, receptors at 960 ~~1,398~~ feet (293 ~~426~~ meters).
CO = carbon monoxide
lbs/day = pounds per day
LST = localized significance threshold
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SCAQMD = South Coast Air Quality Management District
SRA = Source Receptor Area

Table 4.1.10: Operational Localized Emissions

Emissions Sources	Pollutant Emissions (lbs/day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
On-Site Emissions	1.4	10.0	<1.0	<1.0
SCAQMD LST	**191.0 ~~213.0~~**	**4,921.0 ~~7,166.0~~**	**27.0 ~~37.0~~**	**12.0 ~~20.0~~**
Significant Emissions?	**No**	**No**	**No**	**No**

Source: Compiled by LSA (October 2024).
Note: SRA 17— Central Orange County, 3.5 acre, receptors at 960 ~~1,398~~ feet (293 ~~426~~ meters), on-site traffic 5 percent of total.
CO = carbon monoxide
lbs/day = pounds per day
LST = localized significance threshold
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SCAQMD = South Coast Air Quality Management District
SRA = Source Receptor Area

Operation. SCAQMD Rule 402 regarding nuisances states: "A person shall not discharge 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."

The proposed project would construct a light industrial building. Therefore, the proposed project does not contain land uses typically associated with emitting objectionable odors. The proposed project would also be required to comply with SCAQMD Rule 402 to prevent occurrences of public nuisances. Therefore, odors associated with the proposed project construction and operations would be less than significant, and no mitigation is required.

4.1.7 Level of Significance Prior to Mitigation

The proposed project would not result in any significant impacts related to air quality, and no mitigation is required.

4.1.8 Regulatory Compliance Measures and Mitigation Measures

No regulatory compliance measures are applicable to the proposed project, and no mitigation is required.

4.1.9 Level of Significance after Mitigation

The proposed project would not result in any significant impacts related to air quality.

4.1.10 Cumulative Impacts

As defined in the State CEQA Guidelines, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects within the cumulative impact area for air quality. The cumulative impact area for air quality related to the proposed project is the South Coast Air Basin. Each project in the Basin is required to comply with SCAQMD rules and regulations and is subject to independent review. Per SCAQMD guidance, projects that exceed project-specific significance thresholds are considered to be cumulatively considerable. Conversely, projects that do not exceed project-specific thresholds are generally not considered to be cumulatively significant.[23]

The Basin is currently designated as a nonattainment area for the federal O_3 standard and $PM_{2.5}$ standard and as a nonattainment area for the State O_3, PM_{10}, and $PM_{2.5}$ standard. Thus, the Basin has not met the federal and State standards for these air pollutants. Future development that may take place with implementation of the project would contribute criteria pollutants to the area during project construction and operation.

Air pollution is inherently a cumulative type of impact measured across an air basin. The discussion under Threshold AQ-2, above, includes an analysis of the proposed project's contribution to cumulative air impacts. As discussed above, construction emissions associated with the proposed project would not exceed the SCAQMD thresholds for VOCs, NO_x, CO, SO_X, $PM_{2.5,}$ or PM_{10} emissions. The proposed project's construction- and operation-related regional daily emissions are less than the SCAQMD significance thresholds for all criteria pollutants. In addition, adherence to SCAQMD rules and regulations on a project-by-project basis would substantially reduce potential impacts associated with the related projects and basin-wide air pollutant emissions. Therefore, the proposed project would not have a cumulatively considerable increase in emissions and the proposed project's cumulative air quality impacts would be less than significant.

[23] Goss, Tracy A and Kroeger, Amy, *White Paper on Potential Control Strategies to Address Cumulative Impacts From Air Pollution, Appendix D, Cumulative Impact Requirements Pursuant to the California Environmental Quality Act*, <https://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4> (Accessed May 24, 2024).

4.2 CULTURAL RESOURCES

This section evaluates the potential for the 5665 Plaza Drive Project (proposed project) to impact cultural resources. Cultural resources are sites, buildings, structures, objects, and districts over 50 years old that may have traditional or cultural value for the historical significance they possess. This section summarizes information obtained from the *Phase I Environmental Site Assessment (Phase I ESA) 5665 Plaza Drive Cypress*, California, prepared by Stantec Consulting Services, Inc. (September 2021) and provided in **Appendix D** of this Draft EIR.

The term "site" is used in two contexts in this section:

- "Project site" refers to the approximately 8.53-acre site proposed for development.
- "Cultural resources site" refers to the specific locations of documented cultural materials or artifacts.

4.2.1 Scoping Process

The City received 3 comment letters during the public review period for the NOP. For copies of the NOP comment letters, refer to **Appendix A** of this Draft EIR. None of the comment letters included comments related to cultural resources.

4.2.2 Regulatory Setting

This section includes applicable federal, State, regional, and City regulations.

4.2.2.1 Federal Regulations

The National Historic Preservation Act of 1966 (NHPA) (16 U.S.C. ch. 1A, subch. II; § 470). The NHPA was enacted to preserve historical and archaeological sites in the United States. The NHPA established the Advisory Council on Historic Preservation (ACHP), the National Register of Historic Places (National Register), State Historic Preservation Offices and Officers (SHPOs), and allows for Native American Indian tribes to assume part or all of the SHPO's role through establishment of Tribal Historic Preservation Officers (THPOs). The NHPA also established the Section 106 consultation process, which mandates that federal agencies proposing actions that may affect historic properties eligible for or listed on the National Register must engage in consultation with interested parties. This typically includes consultation with the SHPO/THPO, local and State historical societies and organizations; and the ACHP. As part of this process, the federal agency must identify information on eligible or listed historic properties. If a historic property has the potential to be affected by the federal action, the federal agency must determine whether the effect would be adverse. If there is a potential adverse effect, the federal agency must resolve the adverse effect through the consultation process.

A cultural resource is evaluated for eligibility for listing in the National Register according to four criteria. These criteria generally require that the resource be 50 years of age or older and significant at the local, State, or national level according to one or more of the following:

A. It is associated with events that have made a significant contribution to the broad patterns of our history;

B. It is associated with the lives of persons significant in our past;

C. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values, or that represent a significant and distinguishable entity whose components lack individual distinction; and/or

D. It has yielded, or may be likely to yield, information important to prehistory or history.

Properties that are not 50 years of age or older must have "exceptional significance" in accordance with National Register Criteria Considerations. The National Register also requires that a resource possess integrity, which is defined as "the ability of a property to convey its significance." The aspects of integrity are location, design, setting, materials, workmanship, feeling, and association. To determine which of these factors are most important will depend on the particular National Register criterion under which the resource is considered eligible for listing.

The Native American Graves Protection and Repatriation Act (NAGPRA) (25 U.S.C. ch. 32 § 3001 *et seq.*). The NAGPRA describes the rights of Native American lineal descendants, Indian tribes, and Native Hawaiian organizations with respect to the treatment, repatriation, and disposition of Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony, referred to collectively in the statute as cultural items, with which they can show a relationship of lineal descent or cultural affiliation. It requires that federal agencies and museums receiving federal funds inventory holdings of Native American human remains and funerary objects and provide written summaries of other cultural items.[24]

4.2.2.2 State Regulations

California Environmental Quality Act (Pub. Res. Code § 21000 *et seq.*). CEQA requires lead agencies to determine whether their projects would have a significant impact on the environment, including significant impacts to historical or unique archaeological resources. CEQA defines a "historical resource" as a resource that meets one or more of the following criteria: (1) listed in, or determined eligible for listing in, the California Register (of Historic Resources); (2) listed in a local register of historical resources as defined in Public Resources Code Section 5020.1(k); (3) identified as significant in a historical resource survey meeting the requirements of Public Resources Code Section 5024.1(g); or (4) determined to be a historical resource by a project's Lead Agency (Pub. Res. Code Section 21084.1 and State CEQA Guidelines Section 15064.5(a)). A historical resource consists of:

> "Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California…. Generally, a resource shall be considered by the lead agency to be 'historically significant' if the resource meets the criteria for listing

[24] National Park Service (NPS). The Native American Graves Protection and Repatriation Act (NAGPRA). Website: https://www.nps.gov/archeology/tools/laws/nagpra.htm (accessed January 10, 2024).

on the California Register of Historical Resources" (State CEQA Guidelines Section 15064.5(a)(3)).

In accordance with State CEQA Guidelines Section 15064.5(b), a substantial adverse change in the significance of a historical resource is a significant effect on the environment.

CEQA requires a Lead Agency to determine whether an archaeological cultural resource meets the definition of a historical resource, a unique archaeological resource, or neither (State CEQA Guidelines Section 15064.5(c)). Prior to considering potential impacts, the Lead Agency must determine whether an archaeological cultural resource meets the definition of a historical resource in State CEQA Guidelines Section 15064.5(c)(1). If the archaeological cultural resource meets the definition of a historical resource, it is treated like any other type of historical resource in accordance with State CEQA Guidelines Section 15126.4. Historical resources have the full advantage of mitigation measures, and treatment of historical resources can include documentation of the resource, avoidance measures, measures for preservation in place, and, as a last resort, data recovery for consequential information about the resource. If the archaeological cultural resource does not meet the definition of a historical resource, then the Lead Agency determines whether it meets the definition of a unique archaeological resource as defined in State CEQA Guidelines Section 21083.2(g). In practice, however, most archaeological sites that meet the definition of a unique archaeological resource will also meet the definition of a historical resource. Should the archaeological cultural resource meet the definition of a unique archaeological resource, it must be treated in accordance with State CEQA Guidelines Section 21083.2. If it can be demonstrated that a project will cause damage to a unique archaeological resource, the Lead Agency may require reasonable efforts to be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. Treatments for archaeological resources can include, but are not limited to, avoidance measures, capping or covering sites adequately, or planning parks or open space to incorporate archaeological sites. If the archaeological cultural resource does not meet the definition of a historical resource or an archaeological resource, the effects to the resource are not considered significant effects on the environment (State CEQA Guidelines Section 15064.5(c)(4)).

California Health and Safety Code Sections 7050.5. California Health and Safety Code Section 7050.5 states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the Coroner of the county in which the remains are discovered has determined whether or not the remains are subject to the Coroner's authority. If the human remains are of Native American origin, the Coroner must notify the Native American Heritage Commission (NAHC) within 24 hours of this identification. The NAHC will identify a Native American Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods.

California Register of Historical Resources (Pub. Res. Code Section 5020 *et seq*.). Public Resources Code establishes the State Historical Resources Commission and charges the State Historic Resources Commission with administration of the California Register of Historical Resources (California Register). State law protects cultural resources by requiring evaluations of the significance of prehistoric and historic resources in CEQA documents. A cultural resource is an important historical resource if it meets any of the criteria found in State CEQA Guidelines Section

15064.5(a). These criteria are nearly identical to those for the National Register, which are listed above.

In coordination with the State Historic Resources Commission, the State Office of Historic Preservation (OHP) maintains the California Register. Properties listed on the National Register are automatically listed in the California Register. Properties formally designated eligible for listing on the National Register are nominated to the California Register and then selected to be listed on the California Register, as are State Landmarks and Points of Interest.

The California Register criteria are based on National Register criteria. For a property to be eligible for inclusion in the California Register, one or more of the following criteria must be met:

1. It is associated with the events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;

2. It is associated with the lives of persons important to local, California, or national history;

3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values; and/or

4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

In addition to meeting one or more of the above criteria, the California Register requires that sufficient time has passed since a resource's period of significance to "obtain a scholarly perspective on the events or individuals associated with the resource." Fifty years is used as a general estimate of time needed to develop the perspective to understand the resource's significance (California Code of Regulations § 4852[d][2]).

The California Register also requires that a resource possess integrity, which is defined as "the authenticity of an historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance" (OHP 1999:2)[25]. To retain integrity, a resource should have its original location, design, setting, materials, workmanship, feeling, and association. Which of these factors is most important depends on the particular criterion under which the resource is considered eligible for listing.[26]

4.2.2.3 Regional Regulations

There are no regional regulations that are applicable to cultural resources relevant to the proposed project.

[25] California Office of Historic Preservation (OHP). 1999. California Register and National Register: A Comparison (for purposes of determining eligibility for the California Register), OHP Technical Assistance Series #6.

[26] Ibid.

4.2.2.4 Local Regulations

Cypress General Plan. The Conservation/Open Space/Recreation (COSR) Element of the Cypress General Plan identifies goals and policies related to cultural resources (and includes references to paleontological resources). Goal COSR-5 is to "preserve Cypress' archaeologic and palaeontologic resources".[27] COSR-5.1 and COSR-5.2 were identified as policies in order to achieve Goal COSR-5. Policy COSR-5.1 is "to update records of resource finds and locations when required"[28] and COSR-5.2 states that "[p]rior to development in previously undeveloped areas, [the City will] require strict adherence to the CEQA guidelines for environmental documentation and mitigation measures where development will affect archaeological or paleontological resources."[29]

However, the City's General Plan does not identify any historic resources and does not contain any specific policies to protect historic resources. The COSR Element states that a record search was conducted by the Regional Information Center at UCLA on November 1, 1991, and yielded negative results for any recorded prehistoric or historic sites. This search also involved a review of maps from the years 1896, 1942, and 1943 which showed a high volume of development between 1896 and 1942. The COSR also states that the City contains no National Register listed or eligible properties, or State Landmarks.

4.2.3 Existing Environmental Setting

The area that is now Cypress (including the project site) was prehistorically occupied by the Gabrielino-Tongva Indian Tribe. The project site is an approximately 8.53-acre property located north of the intersection of Plaza Drive and Douglas Drive within an urbanized area. The project site is currently developed with a five-story office building and associated surface parking lot.

According to the Phase I ESA prepared for the project, historical aerial photographs indicate that the project site was used for light agricultural purposes from approximately 1938 to the late 1980s, with railroad tracks adjacent to the north. By 1994, the project site was developed with the existing office building, as well as commercial buildings to the north, east, and south. The railroad tracks were also no longer present in 1994. Additional commercial development was completed to the west and south of the project site by 2002. The project site and surrounding areas have largely remained the same since 2002.

4.2.4 Methodology

Historic maps, archival research, and aerial photographs of the project site were analyzed from the Phase I ESA to assess the potential for subsurface historic-period archaeological deposits at the project site.

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27 City of Cypress. 2001. Conservation/Open Space/Recreation Element. Website: https://www.cypressca.org/home/showpublisheddocument/686/636123123792970000 (accessed May 13, 2024).

28 Ibid.

29 Ibid.

4.2.5 Thresholds of Significance

The significance thresholds for impacts to cultural resources used in this analysis are consistent with Appendix G of the State CEQA Guidelines and the City's Initial Study/Environmental Checklist. The proposed project may be deemed to have a significant impact with respect to cultural resources if it would:

Threshold CUL-1: Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

Threshold CUL-2: Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Threshold CUL-3: Disturb any human remains, including those interred outside of dedicated cemeteries?

4.2.6 Project Impacts

Threshold CUL-1: Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

Impact CUL-1: No Impact. According to the City of Cypress General Plan, there are no known archaeological resources located in Cypress. Further, the SCCIC record search results and field survey identified no previously recorded cultural resources on or in soils on the project site. As such, there are no historical resources as defined in State CEQA Guidelines Section 15064.5 located within the project site. The proposed project would not cause a substantial adverse change in the significance of a historical resource, and no mitigation is required.

Threshold CUL-2: Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Impact CUL-2: Less Than Significant with Mitigation Incorporated. As stated above in Threshold CUL-1, there are no known archaeological resources located in Cypress. There are no National Register listed or eligible properties or State landmarks in the City.[30]

The project site has been previously disturbed to construct an office building and a surface parking lot. The existing office building at the project site would be demolished, materials removed, and the entirety of the site would be graded for the construction of the proposed project. Although the site has been developed and used for nearly 100 years for various operations, there is evidence of a prehistoric presence of Native American tribes in the area. During site preparation/grading activities, there is the potential for inadvertent discovery of unknown archaeological resources.

[30] City of Cypress. General Plan. Conservation/Open Space/Recreation Element. Page COSR-7. Website: https://www.cypressca.org/home/showpublisheddocument/686/636123123792970000 (accessed May 13, 2024).

Mitigation Measure CUL-1 requires that a qualified professional archaeologist provide cultural resources awareness training prior to the commencement of ground-disturbing activities and that a qualified professional archaeologist be retained on-call in the event that construction personnel encounter any archaeological deposits and/or human remains during construction activities. If construction personnel encounter any archaeological deposits during construction activities, the on-call qualified professional archaeologist will be contacted to assess the nature of the find. When archaeological resources are assessed and/or protected as they are discovered, impacts to these resources would be less than significant. As such, implementation of **Mitigation Measure CUL-1** would reduce the impact of the proposed project on the significance of archaeological resources to less than significant.

Threshold CUL-3 **Would the project disturb any human remains, including those interred outside of dedicated cemeteries?**

Impact CUL-3: Less Than Significant Impact. Although no human remains are known to be on the project site or are anticipated to be discovered during project construction, due to ground disturbance there is a possibility of inadvertent discovery of human remains. Disturbing human remains could violate the State's Health and Safety Code as well as destroy the resource. **Regulatory Compliance Measure CUL-1** requires compliance with the State's Health and Safety Code for the treatment of human remains. Adherence to regulatory standards included in **Regulatory Compliance Measure CUL-1** would reduce the impact of the proposed project on human remains to less than significant. No mitigation is required.

4.2.7 Level of Significance Prior to Mitigation

No impacts to historical resources would occur. Prior to mitigation, the proposed project has the potential to result in significant impacts to unknown archaeological resources. With adherence to **Mitigation Measure CUL-1** and **Regulatory Compliance Measure CUL-1**, the project would result in less than significant impacts to previously undiscovered archaeological resources and/or human remains.

4.2.8 Mitigation Measures and Regulatory Compliance Measures

4.2.8.1 Mitigation Measures

Mitigation Measure CUL-1 **Unknown Archaeological Resources.** In the event that archaeological resources are discovered during excavation, grading, or construction activities, work shall cease within 50 feet of the find until a qualified archaeologist from the Orange County List of Qualified Archaeologists has evaluated the find in accordance with federal, State, and local guidelines to determine whether the find constitutes a "unique archaeological resource," as defined in Section 21083.2(g) of the California Public Resources Code (PRC). The Applicant and its construction contractor shall not collect or move any archaeological materials and associated materials. Construction activity may continue unimpeded on other portions of the project site. Any found deposits shall be treated in accordance with federal, State and local guidelines, including those set forth in

PRC Section 21083.2, and shall be assessed, handled, and treated consistent with accepted standards, such as the Secretary of the Interior's standards and guidelines for archaeology and historic preservation. Prior to commencement of grading activities, the Director of the City of Cypress (City) Community Development Department, or designee, shall verify that all project grading and construction plans include specific requirements regarding California PRC (Section 21083.2[g]) and the treatment of archaeological resources as specified above.

4.2.8.2 Regulatory Compliance Measures

The following regulatory compliance measure is an existing regulation that is applicable to the proposed project and is considered in the analysis of potential impacts related to cultural resources. The City of Cypress considers this requirement to be mandatory; therefore, it is not a mitigation measure.

Regulatory Compliance Measure CUL-1

Cultural Resources Monitoring and Accidental Discovery, Human Remains. In the event that human remains are encountered on the project site, work within 50 feet of the discovery shall be redirected and the County Coroner notified immediately consistent with the requirements of California Code of Regulations (CCR) Section 15064.5(e). State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code (PRC) Section 5097.98. If the remains are determined to be Native American, the County Coroner shall notify the Native American Heritage Commission (NAHC), which shall determine and notify a Most Likely Descendant (MLD). With the permission of the property owner, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD may recommend scientific removal and non-destructive analysis of human remains and items associated with Native American burials. Consistent with CCR Section 15064.5(d), if the remains are determined to be Native American and an MLD is notified, the City of Cypress shall consult with the MLD as identified by the NAHC to develop an agreement for treatment and disposition of the remains. Prior to the issuance of grading permits, the Director of the City of Cypress Community Development Department, or designee, shall verify that all grading plans specify the

requirements of CCR Section 15064.5(e), State Health and Safety Code Section 7050.5, and PRC Section 5097.98, as stated above.

4.2.9 Level of Significance after Mitigation

No impacts to historical resources would occur. **Mitigation Measure CUL-1** would reduce potential impacts to unknown archaeological resources to a less than significant level. With adherence to the regulatory standards in **Regulatory Compliance Measure CUL-1**, the project would result in less than significant impacts to previously undiscovered buried human remains. No significant and unavoidable impacts to archaeological resources would occur with implementation of this mitigation measure. After mitigation has been implemented, all anticipated impacts to cultural resources would be considered less than significant.

4.2.10 Cumulative Impacts

Because impacts to cultural resources are typically site specific, the geographic scope of the proposed project for purposes of the cumulative impacts analysis would be the project site and the immediately surrounding area. The proposed project would have no impacts to historical resources. Therefore, when combined with the potential impacts of the past, present, and reasonably foreseeable projects identified in **Table 4.1, Summary of Cumulative Projects**, in Chapter 4.0 of this EIR, the proposed project would not contribute to cumulative impacts.

The cumulative projects all likely involved or would involve some level of ground disturbance with potential for inadvertent discovery of archaeological resources or human remains. As previously discussed, the proposed project would implement **Mitigation Measure CUL-1** in the case of accidental discovery of archaeological resources and **Regulatory Compliance Measure CUL-1** in the event human remains were accidentally discovered. Compliance with these measures would reduce any impacts to these resources associated with the proposed project to less than significant. Similarly, the cumulative projects would be required to comply with applicable laws and regulations pertaining to discovery of these resources. Accordingly, any cumulative impacts would be less than significant.

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4.3 ENERGY

This section discusses energy use resulting from implementation of the 5665 Plaza Drive Project (proposed project) and evaluates whether the proposed project would result in the wasteful, inefficient, or unnecessary consumption of energy resources or conflict with any applicable plans for renewable energy and energy efficiency.

4.3.1 Scoping Process

The City received 3 comment letters during the public review period for the NOP. For copies of the NOP comment letters, refer to **Appendix A** of this EIR. None of the comment letters included comments related to energy.

4.3.2 Regulatory Setting

4.3.2.1 Federal Regulations

Energy Policy Act of 2005 (16 U.S.C. ch. 46 § 2601 *et seq.*; 42 U.S.C. ch. 134 § 13201 *et seq.*). The Energy Policy Act of 2005 seeks to reduce reliance on non-renewable energy resources and provide incentives to reduce current demand on these resources. For example, under the Act, consumers and businesses can obtain federal tax credits for purchasing fuel-efficient appliances and products (including hybrid vehicles), building energy-efficient buildings, and improving the energy efficiency of commercial buildings. Additionally, tax credits are available for the installation of qualified fuel cells, stationary microturbine power plants, and solar power equipment.

Corporate Average Fuel Economy Standards (49 CFR Parts 531, 533, 536, and 537). On March 31, 2022, the National Highway Traffic Safety Administration (NHTSA) finalized the CAFE standards for Model Years 2024–2026 Passenger Cars and Light Trucks. The amended CAFE standards would require an industry-wide fleet average of approximately 49 miles per gallon (mpg) for passenger cars and light trucks in model year 2026 by increasing fuel efficiency by 8 percent annually for model years 2024–2025, and 10 percent annually for model year 2026. The final standards are estimated to save about 234 billion gallons of gas between model years 2030 and 2050.

Safer Affordable Fuel-Efficient Vehicles Rule (85 Fed. Reg 24174 [April 30, 2020]). In August 2018, the NHTSA and the U.S. Environmental Protection Agency (USEPA) proposed *The Safer Affordable Fuel-Efficient* (SAFE) *Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks* (SAFE Vehicles Rule) to amend the CAFE and GHG emission standards established in 2012 for model years 2021 through 2026. The SAFE Vehicles Rule deceases fuel economy and withdraws the California Waiver for the California Advanced Clean Car program, Zero Emissions Vehicle mandate, and GHG emission standards for model years 2021 through 2026. the final SAFE Vehicles Rule was promulgated in April 2020.

4.3.2.2 State Regulations

Assembly Bill 1575, Warren-Alquist Act (Pub. Resources Code § 25000 *et seq.*). In 1975, largely in response to the oil crisis of the 1970s, the State Legislature adopted Assembly Bill (AB) 1575 (also known as the Warren-Alquist Act), which created the California Energy Commission (CEC). The statutory mission of the CEC is to forecast future energy needs; license power plants of

50 megawatts (MW) or larger; develop energy technologies and renewable energy resources; plan for and direct State responses to energy emergencies; and, perhaps most importantly, promote energy efficiency through the adoption and enforcement of appliance and building energy efficiency standards. AB 1575 also amended Public Resources Code (PRC) Section 21100(b)(3) and State CEQA Guidelines Section 15126.4 to require EIRs to include, where relevant, mitigation measures proposed to minimize the wasteful, inefficient, and unnecessary consumption of energy caused by a project. Thereafter, the State Resources Agency created Appendix F to the State CEQA Guidelines. Appendix F assists EIR preparers in determining whether a project will result in the inefficient, wasteful, and unnecessary consumption of energy. Appendix F of the State CEQA Guidelines also states that the goal of conserving energy implies the wise and efficient use of energy and the means of achieving this goal, including (1) decreasing overall per capita energy consumption; (2) decreasing reliance on fossil fuels such as coal, natural gas, and oil; and (3) increasing reliance on renewable energy sources.

Senate Bill 1389, Energy: Planning and Forecasting (Pub. Resources Code § 25300 *et seq*.). In 2002, the State Legislature passed Senate Bill (SB) 1389, which required the CEC to develop an integrated energy plan every two years for electricity, natural gas, and transportation fuels for the California Energy Policy Report. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero emission vehicles (ZEVs) and their infrastructure needs, and encouragement of urban designs that reduce vehicle miles traveled (VMT) and accommodate pedestrian and bicycle access.

In compliance with the requirements of SB 1389, the CEC adopts an Integrated Energy Policy Report every two years and an update every other year. The most recently adopted report includes the *2023 Integrated Energy Policy Report.*[31] The *Integrated Energy Policy Report* covers a broad range of topics, including decarbonizing buildings, integrating renewables, energy efficiency, energy equity, integrating renewable energy, updates on Southern California electricity reliability, climate adaptation activities for the energy sector, natural gas assessment, transportation energy demand forecast, and the California Energy Demand Forecast. The *Integrated Energy Policy Report* provides the results of the CEC's assessments of a variety of energy issues facing California. Many of these issues will require action if the State is to meet its climate, energy, air quality, and other environmental goals while maintaining energy reliability and controlling costs.

Renewable Portfolio Standards (SB 1078; Pub. Util. Code § 399.15). SB 1078 established the California Renewable Portfolio Standards program in 2002. SB 1078 initially required that 20 percent of electricity retail sales be served by renewable resources by 2017; however, this standard has become more stringent over time. In 2006, SB 107 accelerated the standard by requiring that the 20 percent mandate be met by 2010. In April 2011, SB 2 required that 33 percent of electricity retail sales be served by renewable resources by 2020. In 2015, SB 350 established tiered increases to the

[31] CEC. 2023. *2023 Integrated Energy Policy Report Update*. California Energy Commission. Docket Number 23-IEPR-01.

Renewable Portfolio Standards of 40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. In 2018, SB 100 increased the requirement to 60 percent by 2030 and required that all State's electricity to come from carbon-free resources by 2045. SB 100 took effect on January 1, 2019.[32]

California Energy Code (Cal. Code Regs tit. 24). Energy consumption by new buildings in California is regulated by the Building Energy Efficiency Standards, in Part 6 of Title 24 of the California Code of Regulations (CCR), known as the Energy Code. The CEC first adopted the Building Energy Efficiency Standards for Residential and Nonresidential Buildings in 1978 in response to a legislative mandate to reduce energy consumption in the State. The Energy Code is updated every three years, with the most recent update consisting of the 2022 Energy Code that became effective on January 1, 2023. Mid-cycle supplements to the 2022 code will become effective on July 1, 2024. The efficiency standards apply to both new construction and rehabilitation of both residential and non-residential buildings, and regulate energy consumed for heating, cooling, ventilation, water heating, and lighting. The building efficiency standards are enforced through the local building permit process. Local government agencies may adopt and enforce energy standards for new buildings, provided these standards meet or exceed those provided in the Energy Code.

California Green Building Standards Code (CALGreen Code)(Cal. Code Regs tit.24, pt. 11). In 2010, the California Building Standards Commission (CBSC) adopted Part 11 of the Title 24 Building Energy Efficiency Standards, referred to as the California Green Building Standards Code (CALGreen Code). The CALGreen Code took effect on January 1, 2011. The CALGreen Code is updated on a regular basis, with the most recent update consisting of the 2022 CALGreen Code standards that became effective January 1, 2023. The CALGreen Code established mandatory measures for residential and non-residential building construction and encouraged sustainable construction practices in the following five categories: (1) planning and design, (2) energy efficiency, (3) water efficiency and conservation, (4) material conservation and resource efficiency, and (5) indoor environmental quality. Although the CALGreen Code was adopted as part of the State's efforts to reduce GHG emissions, the CALGreen Code standards have co-benefits of reducing energy consumption from residential and non-residential buildings subject to the standard.

California Energy Efficiency Strategic Plan. On September 18, 2008, the California Public Utilities Commission (CPUC) adopted California's first Long-Term Energy Efficiency Strategic Plan, presenting a roadmap for energy efficiency in California (CPUC 2008). The Plan was updated in January 2011 (adopted by the CPUC in D.10-09-047). The Plan articulates a long-term vision and goals for each economic sector and identifies specific near-term, mid-term, and long-term strategies to assist in achieving those goals. The Plan also reiterates the following four specific programmatic goals known as the "Big Bold Energy Efficiency Strategies" that were adopted by the CPUC in Decisions D.07-10-032 and D.07-12-051:

- All new residential construction will be zero net energy (ZNE) by 2020.
- All new commercial construction will be ZNE by 2030.

[32] California Public Utilities Commission (CPUC). 2020. Renewables Portfolio Standard (RPS) Program. Website: https://www.cpuc.ca.gov/rps/ (accessed May 13, 2024).

- 50 percent of commercial buildings will be retrofitted to ZNE by 2030.
- 50 percent of new major renovations of State buildings will be ZNE by 2025.

4.3.2.3 Regional Regulations

There are no regional energy regulations that apply to the proposed project.

4.3.2.4 Local Regulations

Cypress Municipal Code. The City of Cypress has adopted the 2019 California Green Building Standards Code (CALGreen Code) and incorporated the CALGreen Code by reference into the City Municipal Code (Chapter 5, Buildings, Article 1, Building Code, Section 5-1 California Building Codes – Adopted).

Cypress General Plan Conservation/Open Space/Recreation Element. The following goals and policies are applicable to the proposed project:

COSR-3 Conserve energy resources through the use of available technology and conservation practices.

COSR-3.1 Encourage innovative site planning and building designs that minimize energy consumption by taking advantage of sun/shade patterns, prevailing winds, landscaping, and building materials.

COSR-3.2 Encourage new development and existing structures to install energy saving features.

4.3.3 Existing Environmental Setting

4.3.3.1 Electricity

Electrical power is a man-made resource. The production of electricity requires the consumption or conversion of energy resources (including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources) into energy. Electricity is used for a variety of purposes (e.g., lighting, heating, cooling, and refrigeration, and for operating appliances, computers, electronics, machinery, and public transportation systems).[33]

According to the most recent data available from the CEC, in 2022, total electricity generated in California was 287,220 gigawatt-hours (GWh), up 3.4 percent from 2021's total generation of 277,764 GWh.[34] The project site is within the service territory of Southern California Edison (SCE). SCE provides electricity to more than 15 million people in a 50,000-square-mile area of Central,

[33] United States Energy Information Administration (EIA). 2022. Electricity Explained. Website: https://www.eia.gov/energyexplained/electricity/ (accessed May 15, 2024).

[34] California Energy Commission (CEC). 2023. 2022 Total System Electric Generation. Website: https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2022-total-system-electric-generation#:~:text=Highlights%20for%202022,(9%2C456%20GWh)%20from%202021. (accessed May 15, 2024).

Coastal, and Southern California.[35] According to the CEC, total electricity consumption in the SCE service area in 2022 was 85,870 GWh. Total electricity consumption in Orange County in 2022 was 20,243.7 GWh (20,243,721,856 kilowatt hours [kWh]).[36]

4.3.3.2 Natural Gas

Natural gas is a non-renewable fossil fuel. Fossil fuels form when layers of decomposing plant and animal matter are exposed to intense heat and pressure under the surface of the Earth over millions of years. Natural gas is a combustible mixture of hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas is found in naturally occurring reservoirs in deep underground rock formations. Natural gas is used for a variety of uses (e.g., heating buildings, generating electricity, and powering appliances such as stoves, washing machines and dryers, gas fireplaces, and gas grills).

Natural gas consumed in California is used for electricity generation (45 percent), residential uses (21 percent), industrial uses (25 percent), and commercial uses (9 percent). California continues to depend on out-of-state imports for nearly 90 percent of its natural gas supply.[37]

The Southern California Gas Company (SoCalGas) is the natural gas service provider for the project site. SoCalGas provides natural gas to approximately 21.8 million people in a 24,000 sq mi service area throughout Central and Southern California, from Visalia to the Mexican border.[38] According to the CEC, total natural gas consumption in the SoCalGas service area in 2022 was 5,026 million therms (1,646 million therms for the industrial sector). Total natural gas consumption in Orange County in 2022 was 572 million therms (352 million therms for the residential sector and 221 million therms for the non-residential sector).[39]

4.3.3.3 Petroleum/Transportation Energy

Petroleum is also a non-renewable fossil fuel. Petroleum is a thick, flammable, yellow-to-black mixture of gaseous, liquid, and solid hydrocarbons that occurs naturally beneath the earth's surface. Petroleum is primarily recovered by oil drilling. It is refined into a large number of consumer products, primarily fuel oil, gasoline, and diesel.

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35 Southern California Edison (SCE). Fact Sheets. Website: https://newsroom.edison.com/fact-sheets/fs (accessed May 15, 2024).

36 CEC. 2019a. California Energy Consumption Database. Website: http://www.ecdms.energy.ca.gov/ (accessed May 15, 2024).

37 CEC. 2021c. Supply and Demand of Natural Gas in California. Website: https://www.energy.ca.gov/data-reports/energy-almanac/californias-natural-gas-market/supply-and-demand-natural-gas-california (accessed May 15, 2024).

38 Southern California Gas Company (SoCalGas). 2020. About SoCalGas. Website: https://www3.socalgas.com/about-us/company-profile (accessed May 15, 2024).

39 CEC. 2019b. Gas Consumption by County. Website: http://www.ecdms.energy.ca.gov/gasbycounty.aspx (accessed May 15, 2023).

The average fuel economy for light-duty vehicles (autos, pickups, vans, and sport utility vehicles) in the United States has steadily increased from about 14.9 miles per gallon (mpg) in 1980 to 22.9 mpg in 2020.[40] Federal fuel economy standards have changed substantially since the Energy Independence and Security Act was passed in 2007. This act, which originally mandated a national fuel economy standard of 35 mpg by year 2020,[41] applies to cars and light trucks of Model Years 2011 through 2020. In March 2020, the United States Environmental Protection Agency and National Highway Traffic Safety Administration (NHTSA) finalized the Corporate Average Fuel Economy (CAFE) standards for Model Years 2024–2026 Passenger Cars and Light Trucks, further detailed below.

Gasoline is the most used transportation fuel in California, with 97 percent of all gasoline being consumed by light-duty cars, pickup trucks, and sport utility vehicles. According to the most recent data available, total gasoline consumption in California was 319,514 thousand barrels or 1,613.5 trillion British thermal units (BTU) in 2021.[42] Of the total gasoline consumption, 302,881 thousand barrels or 1,529.5 trillion BTU were consumed for transportation.[43] Based on fuel consumption obtained from EMFAC2021, 157.1 million gallons of diesel and 1.2 billion gallons of gasoline are estimated to be consumed from vehicle trips in Orange County in 2024.

4.3.4 Methodology

The energy use analysis discussed in this section is based on information from the CalEEMod version 2022.1. modeling results provided in **Appendix C** of this Draft EIR. Operational fuel consumption (diesel fuel and gasoline) from vehicle trips was estimated for the proposed project based on vehicle trip estimates from CalEEMod and fuel efficiencies from the CARB's EMFAC2021 model. Estimates of fuel consumption (diesel fuel and gasoline) from construction trucks and construction worker vehicles were based on trip estimates from CalEEMod and fuel efficiencies from the CARB EMFAC2021 model.

The analysis focuses on the four sources of energy that are relevant to the proposed project: electricity, natural gas, the equipment fuel necessary for project construction, and vehicle fuel necessary for project operations. To assist in the analysis and provide context, the amount of electricity, natural gas, construction fuel, and fuel use from operations are quantified and compared to that consumed in Orange County as a whole. The electricity/natural gas use of the proposed project is analyzed as a whole on an annual basis.

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40 United States Department of Transportation (USDOT). "Table 4-23: Average Fuel Efficiency of U.S. Light Duty Vehicles." Website: https://www.bts.dot.gov/bts/bts/content/average-fuel-efficiency-us-light-duty-vehicles (accessed May 13, 2024).

41 United States Department of Energy. 2007. "Energy Independence & Security Act of 2007." Website: https://www.afdc.energy.gov/laws/eisa (accessed May 13, 2024).

42 A British thermal unit is defined as the amount of heat required to raise the temperature of one pound of water by one degree Fahrenheit.

43 U.S. Energy Information Administration (EIA). 2020. California State Profile and Energy Estimates. Table F3: Motor gasoline consumption, price, and expenditure estimates, 2017. Website: eia.gov/state/seds/data.php?incfile=/state/seds/sep_fuel/html/fuel_mg.html&sid=CA (accessed May 13, 2024).

4.3.5 Thresholds of Significance

The thresholds for energy impacts used in this analysis are consistent with Appendix G of the State CEQA Guidelines and the City's Initial Study/Environmental Checklist. The proposed project may be deemed to have a significant impact with respect to energy if it would:

Threshold ENG-1: Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Threshold ENG-2: Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

4.3.6 Project Impacts

Threshold ENG-1: **Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?**

Impact ENG-1: Less Than Significant Impact. Implementation of the proposed project would increase the demand for energy through day-to-day operations and fuel consumption associated with construction activities. This section discusses energy use resulting from implementation of the proposed project and evaluates whether the proposed project would result in the wasteful, inefficient, or unnecessary consumption of energy resources.

Construction Energy Demands. Construction of the proposed project is anticipated to last approximately 11 months, including a 60-day demolition period, and would require energy for the manufacture and transportation of construction materials, worker commutes, preparation of the site for grading and building activities, and construction of the proposed building. All or most of this energy would be derived from non-renewable resources. Petroleum fuels (e.g., diesel and gasoline) would be the primary sources of energy for these activities. Construction of the proposed project would not involve the consumption of natural gas because none of the construction-related equipment would be powered by natural gas. Electricity would be used onsite for lighting, operating construction office equipment, and in use of smaller power tools.

Construction activities are not anticipated to result in an inefficient use of energy because gasoline and diesel fuel would be supplied by construction contractors who would conserve the use of their supplies to minimize their costs on the proposed project. Energy usage on the project site during construction would be temporary in nature and would be relatively small in comparison to the State's available energy sources. The proposed project would not necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in the region or State. Demolition of the existing buildings and infrastructure onsite would consist of primality of demolition materials which can be recycled. Construction activities would comply with all existing regulations, as required through the City's development permitting process, and would not use large amounts of energy or fuel in a wasteful, inefficient, or unnecessary manner. Therefore, the proposed construction activities would not be considered to be wasteful.

Operational Energy Demands. Energy use consumed by the proposed project would be associated with natural gas use, electricity consumption, and fuel used for vehicle and truck trips associated with the project.

CalEEMod divides building electricity use into uses that are subject to Title 24 standards and those that are not. For electricity, Title 24 uses include the major building envelope systems covered by Part 6 (California Energy Code) of Title 24 (e.g., space heating, space cooling, water heating, and ventilation). Non-Title 24 uses include all other end uses (e.g., appliances, electronics, and other miscellaneous plug-in uses). Because some lighting is not considered as part of the building envelope energy budget, CalEEMod considers lighting as a separate electricity use category.

As described above, the proposed project would result in energy usage associated with gasoline and diesel to fuel project-related trips. Trip generation rates used in CalEEMod for the proposed project were based on the project's trip generation estimates identified in the proposed project's Traffic Analysis (provided in **Appendix E** of this EIR).[44] The proposed project would generate a total of 406 average daily trips (ADT), including 262 passenger vehicle trips, 50 two-axle truck trips, 16 three-axle truck trips, and 78 four-axle truck trips, all of which were included in CalEEMod.

Table 4.3.1 provides the proposed project's estimated annual operational energy usage. The electricity and natural gas rates are from the CalEEMod analysis, while the gasoline and diesel rates are based on the Traffic Analysis in conjunction with United States Department of Transportation (USDOT) fuel efficiency data.

Table 4.3.1: Estimated Annual Energy Use

Land Use	Electricity Use (kWh per year)	Natural Gas Use (therms per year)	Gasoline Consumption (gallons per year)	Diesel Consumption (gallons per year)
Existing Uses				
General Office Building	671,059	**9,545**	**40,436**	**26,013**
Proposed Project				
Refrigerated Warehouse	3,701,189	47,952	33,938	158,778
Parking Lot	76,317	-	-	-
Total Project Energy Usage	**3,777,506**	**47,952**	**33,938**	**158,778**
Total Net Energy Usage	**3,106,447**	**38,407**	**-6,498**	**132,765**

Source: Compiled by LSA (June 2024).
kWh = kilowatt-hour(s)

As shown in **Table 4.3.1**, the estimated potential net increase in electricity demand associated with the operation of the proposed project is 3,106,447 kWh per year. Total electricity consumption in Orange County in 2022 was 20,243.7 GWh or 20,243,721,856 kWh. Therefore, operation of the proposed project would increase the annual electricity consumption in Orange County by less than 0.1 percent.

[44] Urban Crossroads. 2023. *Goodman Commerce Center Traffic Analysis*. November 21, 2023.

Also as shown in **Table 4.3.1**, the estimated potential net increase in natural gas demand associated with the proposed project is 38,407 therms per year. Total natural gas consumption in Orange County in 2022 was 572 million therms (572,454,744 therms). Therefore, operation of the proposed project would negligibly increase the annual natural gas consumption in Orange County by less than 0.1 percent.

Although there would be an overall increase in energy demand associated with the proposed project, the CALGreen Code (California Code of Regulations, Title 24, Part 11), sets performance standards for nonresidential development to reduce environmental impacts and encourage sustainable construction practices. The CALGreen Code addresses energy efficiency, water conservation, materials conservation, planning and design, and overall environmental quality. CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2022 California Green Building Standards Code that became effective on January 1, 2023.

The project would be required to adhere to all federal, State, and local requirements for energy efficiency, including current Title 24 and CALGreen Code standards which establish minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting, which would reduce energy usage. In addition, proposed new development would be constructed using energy efficient modern building materials and construction practices, and the proposed project also would use new modern appliances and equipment, in accordance with the Appliance Efficiency Regulations (Title 20, CCR Sections 1601 through 1608). Title 24 includes requirements for reductions in energy consumption and increasing energy efficiency. Title 24 now has solar installation requirements for all newly constructed non-residential projects. The CBC now mandates incorporation of solar photovoltaic systems and battery storage in many non-residential projects, or for non-qualifying projects installation of solar-ready roofs and systems. These requirements serve to offset electricity demand and the project will be required to adhere to applicable Title 24 requirements. The proposed project's compliance with Title 24 will be confirmed prior to issuance of building permits. The expected energy consumption during construction and operation of the proposed project would be consistent with typical usage rates for industrial uses. In addition, the proposed project would be required to comply with Regulatory Compliance Measure EN-1 which would reduce energy usage on the project site during construction through reducing truck idling times. With implementation of **Regulatory Compliance Measure EN-1**, impacts to energy resources during project construction would be less than significant, and no mitigation is required.

In addition, the proposed project would result in energy usage associated with gasoline and diesel to fuel project-related trips. The average fuel economy for light-duty vehicles (automobiles, pickups, vans, and sport utility vehicles) in the United States has steadily increased, from about 14.9 mpg in 1980 to 22.9 mpg in 2020.[45] The average fuel economy for heavy-duty trucks in the United States

[45] United States Department of Transportation (USDOT). 2021. Table 4-23: Average Fuel Efficiency of U.S. Light Duty Vehicles. Website: www.bts.gov/content/average-fuel-efficiency-us-light-duty-vehicles (accessed May 13, 2024).

has also steadily increased, from 5.7 mpg in 2013 to a 8.0 mpg in 2021.[46] Therefore, using the USEPA fuel economy estimates for 2020, the California diesel fuel economy estimates for 2021, and the traffic data from the Traffic Analysis prepared for the proposed project, the proposed project is estimated to result in the net decrease of approximately 6,498 gallons of gasoline and the net increase of approximately 132,401 of diesel fuel per year from existing conditions. Based on fuel consumption obtained from EMFAC2021, 157.1 million gallons of diesel and 1.2 billion gallons of gasoline are anticipated to be consumed from vehicle trips in Orange County in 2024. Therefore, vehicle and truck trips associated with the proposed project would not increase the annual gasoline fuel use in Orange County and would increase the annual diesel fuel use by approximately 0.1 percent in Orange County. Therefore, operation of the proposed project would represent a very small percentage of the annual gasoline and diesel fuel consumption in Orange County.

Vehicles associated with trips to and from the project site would be subject to fuel economy and efficiency standards, which are applicable throughout the State. As such, the fuel efficiency of vehicles associated with project operations would increase throughout the life of the proposed project. Therefore, implementation of the proposed project would not result in a substantial increase in transportation-related energy uses. The proposed project would not result in the wasteful, inefficient, or unnecessary consumption of fuel or energy and would incorporate renewable energy or energy efficiency measures into building design, equipment uses, and transportation. Impacts would be less than significant, and no mitigation measures would be necessary.

Threshold ENG-2: Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Impact ENG-2: Less Than Significant Impact. In 2002, the Legislature passed Senate Bill (SB) 1389, which required the CEC to develop an integrated energy plan every two years for electricity, natural gas, and transportation fuels for the California Energy Policy Report. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero emission vehicles and their infrastructure needs, and encouragement of urban designs that reduce VMT and accommodate pedestrian and bicycle access.

The CEC recently adopted the *2023 Integrated Energy Policy Report*[47] that provides the results of the CEC's assessments of a variety of energy issues facing California. The City of Cypress relies on the State's integrated energy plan and does not have its own local plan to address renewable energy or energy efficiency.

As indicated above, energy usage on the project site during construction would be temporary in nature and would be relatively small in comparison to the overall use in the County. In addition,

[46] CEC. 2015. Medium and Heavy-Duty Truck Prices and Fuel Economy 2013–2026. Website: efiling.energy.ca.gov/getdocument.aspx?tn=206180 (accessed May 13, 2024).

[47] CEC. 2023. *2023 Integrated Energy Policy Report Update*. Docket No. 23-IEPR-01.

energy usage associated with operation of the proposed project would be relatively small in comparison to the overall use in Orange County and the State's available energy sources. Therefore, energy impacts at the regional level would be negligible. Because California's energy conservation planning actions are conducted at a regional level, and because the proposed project's total impact on regional energy supplies would be minor, the proposed project would not conflict with or obstruct California's energy conservation plans as described in the CEC's Integrated Energy Policy Report. Additionally, as demonstrated above, the proposed project would not result in the inefficient, wasteful, and unnecessary consumption of energy. Potential impacts related to conflict with or obstruction of a State or local plan for renewable energy or energy efficiency would be less than significant, and no mitigation is required.

4.3.7 Level of Significance Prior to Mitigation

Energy impacts related to the inefficient, wasteful, and unnecessary consumption of energy are considered less than significant, and no mitigation is required.

4.3.8 Regulatory Compliance Measures and Mitigation Measures

4.3.8.1 Regulatory Compliance Measures

The following regulatory compliance measure includes existing regulations that are applicable to the proposed project and are considered in the analysis of potential impacts related to energy. The City of Cypress considers these requirements to be mandatory; therefore, they are not mitigation measures.

Regulatory Compliance Measure EN-1 **Limit Idling Time.** The Applicant and construction contractor would be required to comply with applicable idling regulations for on-road vehicles during project construction and operation, which require truck drivers to turn off their engines within five minutes of idling.

4.3.8.2 Mitigation Measures

No mitigation is required for the proposed project.

4.3.9 Level of Significance after Mitigation

Construction and operational impacts related to energy use would be less than significant. No mitigation is required.

4.3.10 Cumulative Impacts

The geographic area for cumulative analysis of electricity is that of the SCE service area, while the geographic area for cumulative analysis of natural gas service is that of the SoCalGas service area. Construction and operation of the proposed project would result in an increased demand for electricity and natural gas service. However, this increase would be minimal and would not require SCE to expand or construct infrastructure that could cause substantial environmental impacts. The proposed project would not result in the demand for natural gas during construction; however, operation of the proposed project would increase on-site natural gas demand. As discussed previously, the estimated potential net increase in electricity demand associated with the operation

of the proposed project is 3,106,447 kWh per year. Total electricity consumption in Orange County in 2022 was 20,243.7 GWh or 20,243,721,856 kWh and operation of the proposed project would increase the annual electricity consumption in Orange County by less than 0.1 percent. By 2030, consumption in Orange County is anticipated to increase by 12,000 GWh for the low-demand scenario and by 22,000 GWh for the high-demand scenario.[48] While this forecast represents a large increase in electricity consumption, the proposed project's share of cumulative consumption would be negligible. Energy use associated with the proposed project, in combination with energy use from the cumulative projects, would be within SCE's system-wide net annual increase in electricity supplies over the 2018 to 2030 period, and there are sufficient planned electricity supplies in the region for estimated net increases in energy demands.

The estimated potential net increase in natural gas demand associated with proposed project operations is 38,407 therms per year. Development of the cumulative projects is not anticipated to require additional natural gas infrastructure or result in a substantial increase in demand. Total natural gas consumption in the SoCalGas service area in 2022 was 5,026 million therms (1,646 million therms for the industrial sector). Total natural gas consumption in Orange County in 2022 was 572 million therms (352 million therms for the residential sector and 221 million therms for the non-residential sector).[49] Per SoCalGas's forecast, total natural gas consumption in the SoCalGas service area is expected to remain steady through 2030 for low- and mid-demand scenarios and to increase by approximately 650 million therms under a high-demand scenario due to intense energy efficiency efforts.[50] Proposed project operations would negligibly increase the annual natural gas consumption in Orange County by less than 0.1 percent. It is anticipated that SoCalGas would be able to meet the natural gas demand of the proposed project and the cumulative projects without the need to develop additional facilities. In addition, both SCE and SoCalGas demand forecasts include the growth contemplated by the proposed project and the cumulative projects within their respective service areas. Increased energy efficiency to comply with building energy efficiency standards would reduce energy consumption on a per-square-foot basis. Furthermore, utility companies are required to increase their renewable energy sources to meet the Renewable Portfolio Standards mandate of 60 percent renewable supplies by 2030. SCE and SoCalGas plan to continue to provide reliable service to their customers and upgrade their distribution systems as necessary to meet future demand.

In addition, the proposed project would include energy usage associated with gasoline and diesel to fuel project-related trips. The proposed project is estimated to result in a net decrease of approximately 6,498 gallons of gasoline and a net increase of approximately 132,401 of diesel fuel per year compared to existing conditions. However, those figures are based on existing average

[48] CEC. 2018. *California Energy Demand, 2018–2030 Revised Forecast*. Publication Number: CEC-200-2018-002-CMF. February. Website: https://efiling.energy.ca.gov/getdocument.aspx?tn=223244 (accessed May 13, 2024).

[49] CEC. 2019b. Gas Consumption by County. Website: http://www.ecdms.energy.ca.gov/gasbycounty.aspx (accessed May 13, 2024).

[50] CEC. 2018. *California Energy Demand, 2018–2030 Revised Forecast*. Publication Number: CEC-200-2018-002-CMF. February. Website: https://efiling.energy.ca.gov/getdocument.aspx?tn=223244 (accessed May 13, 2024).

truck fleet demands, which are anticipated to decrease with improvements in heavy duty engine efficiency and transitions to electrification, consistent with regulatory requirements such as the California Advanced Clean Truck Rule. The project would be designed to facilitate achievement of those goals and would not obstruct their implementation. Based on fuel consumption data obtained from EMFAC2021, 157.1 million gallons of diesel and 1.2 billion gallons of gasoline are anticipated to be consumed from vehicle trips in Orange County in 2024. Therefore, vehicle and truck trips associated with the proposed project would not increase the annual gasoline fuel use in Orange County and would increase the annual diesel fuel use by approximately 0.1 percent in Orange County. Therefore, operation of the proposed project would represent a very small percentage of the annual gasoline and diesel fuel consumption in Orange County.

Compliance with **Regulatory Compliance Measure EN-1** would help ensure that the proposed project does not result in an inefficient, wasteful, and unnecessary consumption of energy. Therefore, the proposed project's contribution to impacts related to the inefficient, wasteful, and unnecessary consumption of energy would not be cumulatively considerable, and no mitigation is required.

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4.4 GEOLOGY AND SOILS

This section provides a discussion of the existing geology and soils setting and an analysis of the 5665 Plaza Drive Project's (proposed project) potential geology and soils impacts. This section also addresses potential impacts due to the local geology underlying the project site, as well as slope stability, ground settlement, soil conditions, grading, and regional and local seismic conditions. This section also evaluates potential impacts to paleontological resources. This section summarizes information provided in the *Geotechnical Investigation and Report Update for Proposed Goodman Commerce Center, 5665 and 5757 Plaza Drive* (Geotechnical Evaluation), conducted by G3SoilWorks in August 2023, and provided in **Appendix F** of this Draft EIR. This section also incorporates data from the City of Cypress General Plan,[51] numerous State and federal studies of geologic and seismic hazards in the vicinity of the City, site-specific investigations in the project site, and field observations.

4.4.1 Scoping Process

The City received 3 comment letters during the public review period for the NOP. For copies of the NOP comment letters, refer to **Appendix A** of this Draft EIR. None of the comment letters included comments related to geology.

4.4.2 Regulatory Setting

4.4.2.1 Federal Regulations

There are no federal policies or regulations related to geology and soils that are applicable to the proposed project.

4.4.2.2 State Regulations

Alquist-Priolo Earthquake Fault Zoning Act (1972) (Pub. Resources Code § 2621 *et seq*.). The Alquist-Priolo Earthquake Fault Zoning Act of 1972 and updates (Pub. Resources Code, Section 2621, *et seq.)* is the principal California State guidance to prevent the construction of habitable structures on the surface trace of active earthquake faults. If an active fault is found, a structure for human occupancy must be set back from the fault (generally 50 feet). The Alquist-Priolo Earthquake Fault Zoning Act only addresses the hazard of surface fault rupture; it does not consider other earthquake hazards. There are no known earthquake fault zones on or in the near vicinity of the project site; therefore, regulations recommended by the California Geological Survey (CGS) for investigations conducted in such zones do not specifically apply.

Seismic Hazard Mapping Act (1990) (Pub. Resources Code §§ 2690-2699.6). The Seismic Hazard Mapping Act (SHMA) was adopted by the State in 1990 to address the potential hazards posed by secondary effects of seismic activity, including strong ground shaking, soil liquefaction, and associated ground failure and seismically induced landslides. The CGS prepares and provides local governments with seismic hazard zone maps that identify areas susceptible to amplified shaking, liquefaction, earthquake-induced landslides, and other ground failures. The seismic hazard zones are referred to as "zones of required investigation" because site-specific geological investigations are required for construction projects located within these areas. Before a project can be permitted, a

[51] City of Cypress. 2001. General Plan City of Cypress General Plan, Safety Element.

geologic investigation, evaluation, and written report must be prepared by a licensed geologist to demonstrate that the potential hazards can be successfully mitigated.

Public Resources Code. Section 5097.5 of the PRC provides for the protection of cultural and paleontological resources and prohibits the removal, destruction, injury, or defacement of archaeological and paleontological features on any lands under the jurisdiction of State or local authorities.

4.4.2.3 Regional Regulations

There are no regional policies or regulations related to geology and soils that are applicable to the proposed project.

4.4.2.4 Local Regulations

City of Cypress Municipal Code. Building and construction in the City are subject to the regulations of the City of Cypress Municipal Code. California Code of Regulations (CCR), Title 24, Part 2, the California Building Code (CBC) (2019), provides minimum standards for building design in the State. Local codes are permitted to be more restrictive than Title 24, but not less restrictive. The procedures and limitations for the design of structures are based on site characteristics, occupancy type, configuration, structural system height, and seismic design category. The seismic ratings used in the CBC are derived from the International Building Code specifications. Most of coastal Southern California, including the project site, is located in Seismic Design Category D. Construction activities are subject to occupational safety standards for excavation, shoring, and trenching as specified in the California Occupational Safety and Health Administration (Cal/OSHA) regulations (CCR, Title 8). In addition, the proposed project would adhere to the regulatory standards described in Regulatory Compliance Measure GEO-1, provided below, which includes the seismic and building standards in the City's Building Code, that adopt the CBC with amendments and modifications.

City of Cypress General Plan Conservation/Open Space/Recreation Element. The existing City of Cypress General Plan identifies goals and policies related to paleontological resources. Goal COSR-5 in the Conservation/Open Space/Recreation Element (2000) of the City's General Plan addresses paleontological resources (and potential resources) and indicates that conservation of the resources and investigation of potential resource areas is an important undertaking for connecting with the community's past.

The following goal and policies apply to the proposed project:

COSR-5 Preserve Cypress' archaeologic and paleontological resources.

COSR-5.1 Update records of resource finds and locations when required.

COSR-5.2 Prior to development in previously undeveloped areas, require strict adherence to the CEQA guidelines for environmental documentation and mitigation measures where development will affect archaeological or paleontological resources.

4.4.3 Existing Environmental Setting

4.4.3.1 Project Site

According to the Geotechnical Evaluation, the topography of the site is relatively flat to very gently sloping. Site elevations in feet above the North American Vertical Datum of 1988 (NAVD88) are estimated to range from approximately 38 feet above mean sea level (amsl) near the northeast and southeast corners of the site, approximately 39 feet amsl near the center of the site, and approximately 35–36 feet amsl near the northwest and southwest corners of the site, respectively.

4.4.3.2 Regional Geology

The project site is located within the Los Angeles Basin, a northwest-trending alluviated lowland situated at the north end of the Peninsular Ranges geomorphic province of coastal Southern California. The Los Angeles Basin is subdivided into four primary structural blocks that are distinguished from one another by contrasting basement rock types and stratigraphy. More specifically, the project site is located within the east-central portion of the Downey Plain, a broad lowland area that comprises a large portion of the Central Block of the Los Angeles Basin. This plain is bounded by the Santa Monica Mountains to the north, the Puente Hills and Santa Ana Mountains to the northeast and east, and a northwest-trending alignment of hills and mesas to the west and southwest.

In the area of the project site, the soils that form this extensive alluvial plain are composed primarily of geologically young materials deposited as a result of sedimentation along the Santa Ana and San Gabriel Rivers, with additional materials contributed from smaller canyons that drain the adjoining upland areas to the northeast.

4.4.3.3 Local Geology and Subsurface Conditions

The area occupied by the southern portion of the City of Cypress is underlain by unconsolidated, generally fine-grained, Holocene-age alluvial floodplain deposits composed primarily of various combinations of silt, sand, and clay. Underlying these Holocene alluvial deposits are older, semiconsolidated to consolidated Quaternary-age sediments that extend to depths of 2,700 feet to greater than 4,200 feet below the surface.

The subsurface investigation revealed that the project site is generally underlain with shallow fills and Quaternary alluvial deposits. Borings at the project site encountered Artificial fill within the upper 5 feet below ground surface, consisting of dark grayish brown, moist to very moist, medium-dense, silty sands. Native alluvial materials were encountered at depths below 5 feet below ground surface, consisting of very moist to wet silty sands / sandy silts with interbeds / discontinuous lenses of clayey silt. Silty clay and poorly graded sands were encountered between depths of 35 and 40 feet below ground surface.

4.4.3.4 Local Groundwater Conditions

Information pertaining to the occurrence of groundwater within inland portions of Orange County has primarily been obtained from borehole logs prepared during installation of the numerous water wells throughout the area. In the City and surrounding areas, groundwater may occur within the upper 40 to 50 feet of Holocene-age sediments. This water typically occurs within thin layers of silty sand and sand at depths of between 5 and 50 feet below the surface.

According to the Geotechnical Evaluation, groundwater was encountered at depths of 6 to 9 feet below the ground surface, indicating the presence of shallow groundwater conditions at the project site. Borings B-1 through B-5 encountered groundwater at depths 7 to 8 feet below ground surface, which is consistent with previous investigations conducted by Southern California Geotechnical (SCG), reporting groundwater depths from 5 to 9.5 feet at various boring locations. In 2022, groundwater monitoring wells were installed at depths of 6.4 to 8.8 feet below ground surface which indicated fluctuating water levels, with shallow groundwater conditions persisting across the site. During periods of heavy rainfall or "wet" rainy seasons, the groundwater elevation may rise, potentially resulting in mounding in areas of concentrated influx.

4.4.3.5 Fault Systems and Seismic Conditions

A potentially active fault is defined by the State as a fault with a history of movement within Pleistocene time (between 11,000 and 1.6 million years ago [Ma]). The active and potentially active faults are capable of producing potentially strong seismic shaking at the project site. It is anticipated that the project site will periodically experience ground acceleration as a result of earthquakes. The closest mapped active faults to the project site include the Newport-Inglewood and Whittier fault zones located approximately 5.1 miles southwest and 11.6 miles northeast of the project site, respectively.

No portion of the project site or larger study area in the Geotechnical Evaluation is located within the boundaries of an “Earthquake Fault Zone,” as defined by the State of California in the Alquist-Priolo Earthquake Fault Zoning Act. Furthermore, the Cypress General Plan Safety Element (2001) indicates that no active faults have been identified within City boundaries.

Seismic shaking is characterized by the physical movement of the land surface during and subsequent to an earthquake. Seismic shaking has the potential to cause destruction and damage to buildings and property, including damage resulting from damaged or destroyed gas or electrical utility lines, disruption of surface drainage, blockage of surface seepage and groundwater flow, changes in groundwater flow, dislocation of street alignments, displacement of drainage channels and drains and possible loss of life. In addition, ground shaking can induce several kinds of secondary seismic effects, including liquefaction, differential settlement, and landslides.

The intensity of seismic shaking during an earthquake depends largely on the geologic foundation conditions of the materials composing the upper several hundred feet of the Earth’s surface. The greatest amplitudes and longest durations of ground shaking occur on thick, water-saturated, unconsolidated alluvial sediments, which may lead to liquefaction (as further described below). Ground shaking can also cause ground failure or deformation due to lurching and liquefaction.

Surface fault rupture refers to the displacement of the ground surface along a fault, which can occur during strong earthquakes. The potential for seismic hazards at the project site is a consequence of ground shaking caused by events on nearby active faults. However, as previously discussed, the project site is not located within a designated Alquist-Priolo Earthquake Fault Zone, so the possibility for surface fault rupture is low. The project site is, however, located approximately 5.1 miles to the northeast of an earthquake fault zone that has been established around the active traces of the Newport-Inglewood Fault.

4.4.3.6 Liquefaction and Lateral Spreading

Liquefaction occurs when saturated, cohesionless soils temporarily lose shear strength (liquefy) due to increased pore water pressures induced by strong ground motion during an earthquake. Intervals of loose sand may, therefore, be subject to liquefaction if these materials are or were to become submerged and also exposed to strong seismic ground shaking. Seismic ground shaking of relatively loose, granular soils that are saturated or submerged can cause the soils to liquefy and temporarily behave as a dense fluid. This loss of support can produce local ground failure such as settlement or lateral spreading that may damage overlying improvements.

Lateral spreading typically occurs as a form of horizontal displacement of relatively flat-lying alluvial material toward an open or "unconfined" face such as an open body of water, channel, or excavation. In soils, this movement is generally due to failure along a weak plane and is often associated with liquefaction. The Safety Element of the City's General Plan also identifies the project site as an area at a potentially high risk of liquefaction.

As discussed in the Geotechnical Evaluation, the project site is located in Liquefaction Hazards Zone of required investigations. Subsurface explorations found the presence of potentially liquefiable soils to depths of 50 feet, indicating the potential for dynamic settlements ranging from 2.90 inches to 5.27 inches during severe seismic events. Given the nature and size of the proposed development, differential settlements under current conditions could be significant.

4.4.3.7 Subsidence

The phenomenon of widespread land sinking, or subsidence, is generally related to substantial over pumping of groundwater or petroleum reserves from deep underground reservoirs. Like most of northern Orange County, the City lies atop the Orange County Groundwater Basin (Orange County Basin). Although slight subsidence has been observed elsewhere in the Orange County Basin in Santa Ana (likely due to groundwater withdrawal) and in the Huntington Beach area (likely due to oil withdrawal), there is no recent history of subsidence in the project vicinity.[52] Groundwater levels and storage in the Orange County Basin are managed by the Orange County Water District (OCWD) in a manner that reduces the potential for land subsidence to occur.

4.4.3.8 Compressible/Collapsible Soils

Compressible soils are soils that consolidate when exposed to new loading, such as Artificial Fill or foundation loads. Soil collapse occurs when soils substantially decrease in volume following an increase in moisture content. The results of the subsurface investigation within the project site, as well as investigations conducted for previous reports, indicated that the majority of the project site is underlain by artificial fill in the upper to 5 feet below the surface. Native alluvial soils were encountered below approximately 5 feet below ground surface and generally consisted of interbedded layers of sandy silts with discontinuous lenses of clayey silt. A distinct widespread layer of clayey silt/silty clay was encountered at depths between 15 feet and 32 feet, in Borings B-1

[52] Metropolitan Water District of Southern California. 2007. Groundwater Assessment Study, Chapter IV – Groundwater Basin Reports, Orange County Basins – Orange County Basin, September.

through B-5. At depths between 35 to 40 feet poorly graded sands noted were encountered at the boring locations.

4.4.4 Methodology

To assess the impacts of the proposed project with respect to geologic and soil conditions, G3SoilWorks conducted a Geotechnical investigation and field explorations in May 2022. Additionally previous studies for the proposed project were performed by SCG in June 2021. The discussion below describes the scope of the exploration, including methods used during site reconnaissance and the results of pertinent prior explorations, laboratory tests, and engineering analyses.

4.4.4.1 Background Research and Data Review

Existing geologic literature (i.e., geologic maps, boring logs, and other applicable data) was reviewed by G3SoilWorks.

4.4.4.2 Site Reconnaissance

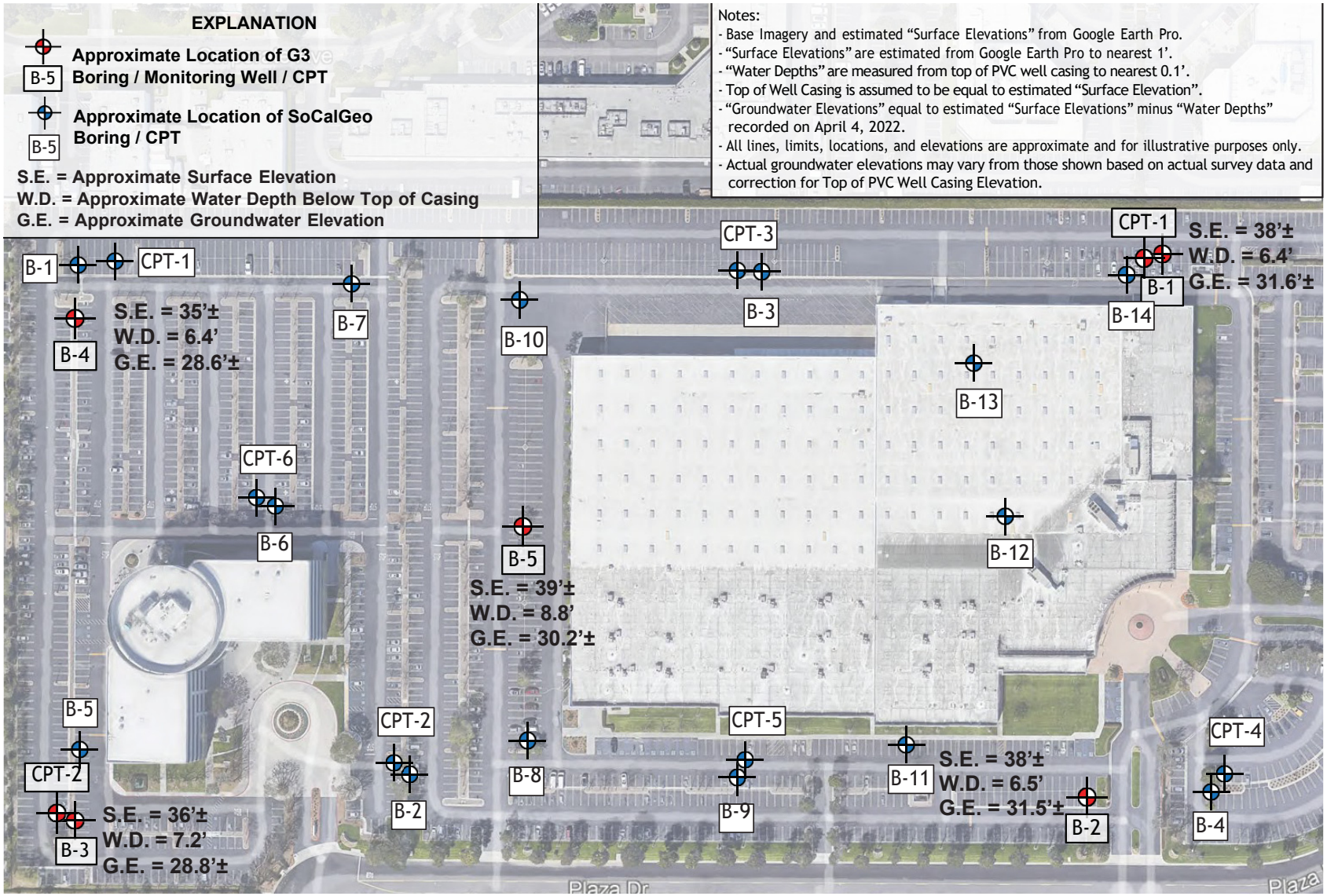
A site reconnaissance and a subsurface exploration of the project site were conducted by G3SoilWork. This included marking exploration and test locations for geology and soils that were analyzed in the Geotechnical Evaluation.

4.4.4.3 Geotechnical Laboratory Testing/Analysis

A field investigation was conducted by G3SoilWorks to identify subsurface conditions on the project site related to soil types, groundwater, liquefaction, corrosive soils, settlement, and the potential need for remedial grading. As part of these field investigations, a total of 5 borings were completed to depths of 25 to 51.5 feet below existing grade utilizing a truck- mounted drilling rig equipped with an 8-inch diameter hollow-stem auger, and associated soil sampling and logging by a geologist and engineer to substantiate the subsurface findings reported by the previous consultant and obtain additional subsurface information. A total of five (5) monitoring wells were installed to determine static water levels and provide a means of groundwater monitoring in advance of and during construction. A review of the liquefaction analyses performed by the previous consultant and the performance of two (2) additional Cone Penetrometer Tests to depths of 50 feet below grade for liquefaction evaluation. All boring sites and CPT locations are shown in **Figure 4.4.1**, **Boring and CPT Locations.**

4.4.5 Thresholds of Significance

The thresholds for geology and soils impacts used in this analysis are consistent with Appendix G of the State CEQA Guidelines and the City's Initial Study/Environmental Checklist. The proposed project may be deemed to have a significant impact with respect to geology and soils if it would:



LSA

FIGURE 4.4.1

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SOURCE: G3 SoilWorks

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5665 Plaza Drive Project Draft Environmental Impact Report

Boring and CPT Locations

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Threshold GEO-1: Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

(i): Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidences of known fault? (Refer to Division of Mines and Geology Special Publication 42)

(ii): Strong seismic ground shaking?

(iii): Seismic-related ground failure, including liquefaction?

(iv): Landslides?

Threshold GEO-2: Result in substantial soil erosion or the loss of topsoil?

Threshold GEO-3: Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-site or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse?

Threshold GEO-4: Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating direct or indirect substantial risks to life or property?

Threshold GEO-5: Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

Threshold GEO-6: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

4.4.6 Project Impacts

Threshold GEO-1(i): **Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidences of known fault? (Refer to Division of Mines and Geology Special Publication 42)**

Impact GEO-1(i): No Impact. According to the Geotechnical Evaluation, active faults do not appear to be present under or in close proximity to the project site. Additionally, according to the California Geological Survey's EQ Zapp: California Earthquake Hazards Zone Application (EQ Zapp web-based application), the Newport-Inglewood and Whittier Fault Zones are the nearest fault zones located approximately 5.1 miles southwest and 11.6 miles northeast of the project site, respectively. Therefore, surface rupture is not anticipated to occur within the project site or surrounding vicinity. No impact would occur, and no mitigation is required.

Threshold GEO-1(ii): Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Strong seismic ground shaking?

Impact GEO-1(ii): Less Than Significant Impact. As mentioned above, the Geotechnical Evaluation determined no evidence of active faults to be present under or in close proximity to the project site. However, incidental ground cracking and other ground shaking phenomena can occur due to high seismic accelerations and regional seismic activity. Thus, it was determined in the Geotechnical Evaluation that risks associated with seismic shaking and strong ground motion are considered to be moderate.

As specified in **Regulatory Compliance Measure GEO-1,** below, the proposed project's building would be subject to the seismic design criteria of the most current CBC requirements that aim to prevent building collapse and reduce the impacts of seismic ground shaking. Adherence to these requirements would address injury and loss of life and building damage after an earthquake. Therefore, with the implementation of **Regulatory Compliance Measure GEO-**1, impacts related to seismic ground shaking would be less than significant, and no mitigation is required. It should also be noted that the project is subject to Mitigation Measure GEO-1, which requires implementation of the recommendations of the Geotechnical Evaluation.

Threshold GEO-1(iii): Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Seismic-related ground failure, including liquefaction?

Impact GEO-1(iii): Less Than Significant with Mitigation Incorporated. Soil liquefaction is a phenomenon in which cyclic stresses, produced by earthquake-induced ground motion, create excess pore pressures in relatively cohesionless and low plastic soils. These soils may thereby acquire a high degree of mobility, which can lead to lateral movement, sliding, consolidation and settlement of loose sediments, sand boils, and other damaging deformations. This phenomenon occurs only below the water table; however, after liquefaction has developed, the effects can propagate upward into overlying non-saturated soil as excess pore water dissipates.

The factors known to influence liquefaction potential include soil type and grain size, relative density, groundwater level, confining pressures, and both intensity and duration of ground shaking. In general, materials that are susceptible to liquefaction are loose, saturated granular soils having low fine content under low confining pressures and some low plastic silts and clays.

According to the California Geological Survey's EQ Zapp, the project site is located in a Liquefaction Hazards Zone of required investigations. The Geotechnical Evaluation included a subsurface exploration and has determined the presence of potentially liquefiable soils to depths of 50 feet. Further analysis determined potential dynamic settlements of approximately 2.9 inches to 5.27 inches during a strong seismic event.

This dynamic settlement as a result of severe seismic activity is expected to occur over a large area and would result in areal subsidence, and the potential differential settlement is expected to be significantly less over any relatively small segment. However, given the nature of the proposed project, which includes a light industrial facility with office and warehouse uses, differential

settlements under current conditions could be significant. Thus, remedial grading, foundation considerations, and/or in-situ ground improvement measures are recommended in the Geotechnical Evaluation to help mitigate potential adverse effects due to soil liquefaction.

Mitigation Measure GEO-1, provided below, requires the construction contractor to comply with the recommendations in the Geotechnical Evaluation to reduce the proposed project's impact related to liquefaction. Therefore, with implementation of **Mitigation Measure GEO-1,** the proposed project's impacts related to liquefaction would be reduced to less than significant. The project would also be required to adhere to **Regulatory Compliance Measure GEO-1**.

Threshold GEO-1(iv): Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Landslides?

Impact GEO-1(iv): No Impact. According to the City's General Plan Safety Element (2001), no significant topographic features exist within the City. Further, according to the Geotechnical Evaluation, the topography of the site is relatively flat to very gently sloping. Site elevations in feet above the NAVD88 are estimated to range from approximately 38 feet amsl near the northeast and southeast corners of the site, approximately 39 feet amsl near the center of the site, and approximately 35–36 feet amsl near the northwest and southwest corners of the site, respectively. Evidence of ancient landslides or slope instabilities were not observed at the project site. Both the project site and surrounding properties are flat with no unusual geographic features, and therefore, neither the project site nor the surrounding area has the potential for impacts related to landslides. No mitigation is required.

Threshold GEO-2: Would the project result in substantial soil erosion or the loss of topsoil?

Impact GEO-2: Less Than Significant Impact. During project construction activities, soil would be exposed and disturbed, drainage patterns would be temporarily altered during grading and other construction activities, and there would be an increased potential for soil erosion and siltation compared to existing conditions. However, as described in Section 4.10, Hydrology and Water Quality, the Construction General Permit requires preparation of a Storm Water Pollution Prevention Plan (SWPPP) (see **Regulatory Compliance Measure HYD-1** in that section). The SWPPP would detail Erosion Control and Sediment Control Best Management Practices (BMPs) to be implemented during project construction to minimize erosion and retain sediment on site. With compliance with the requirements of the Construction General Permit and with implementation of the construction BMPs, construction impacts related to substantial soil erosion and loss of topsoil would be less than significant. Following construction, the project site would be covered with the proposed buildings, paving, and landscaping. Therefore, operation of the proposed project would not result in substantial soil erosion or loss of topsoil. Potential soil erosion impacts related to construction activities would be less than significant with adherence to the required regulations discussed above. Operation of the proposed project would result in no impacts related to soil erosion or loss of topsoil. No mitigation is required.

Threshold GEO-3: Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-site or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse?

4.4.6.1 Landslides and Unstable Slopes

Impact GEO-3: Less Than Significant Impact. Landslides and other forms of mass wasting, including mud flows, debris flows, and soil slips, occur as soil moves downslope under the influence of gravity. Landslides are frequently triggered by intense rainfall or seismic shaking. Because the project site is in a flat area, landslides or other forms of natural slope instability do not represent a significant hazard to the project site or the surrounding area. In addition, as discussed under Threshold GEO-1(iv), the site is not within an area susceptible to landslides as both the project site and surrounding properties are flat with no unusual geographic features. Therefore, potential impacts related to landslides would be less than significant, and no mitigation is required.

4.4.6.2 Lateral Spreading

Impact GEO-3: Less Than Significant Impact. Lateral spreading often occurs on very gentle slopes or flat terrain. The dominant mode of movement is lateral extension accompanied by shear or tensile fracture. This failure is caused by liquefaction and is usually triggered by rapid ground motion, such as that experienced during an earthquake, but can also be artificially induced. When coherent material, either bedrock or soil, rests on materials that liquefy, the upper units may undergo fracturing and extension and may then subside, translate, rotate, disintegrate, or liquefy and flow. The Geotechnical Evaluation indicates that heavy lateral spreading is considered a low risk while ground cracking displacements, and localized spread is considered a moderate risk. These risks would be reduced by the implementation of **Regulatory Compliance Measure GEO-1**, which would include ground treatment and dewatering, as well as providing a capping of engineered fill. Therefore, potential impacts related to lateral spreading would be less than significant, and no mitigation is required.

4.4.6.3 Subsidence

Impact GEO-3: Less Than Significant Impact. Subsidence refers to broad-scale changes in the elevation of land. Common causes of land subsidence are pumping water, oil, and gas from underground reservoirs; dissolution of limestone aquifers (sinkholes); collapse of underground mines; drainage of organic soils; and initial wetting of dry soils (hydrocompaction). Subsidence may also be caused by heavy loads generated by large earthmoving equipment. As stated in the Geotechnical Evaluation, dynamic settlement as a result of liquefaction is expected to occur over a large area and would result in areal subsidence, and the potential differential settlement is expected to be significantly less over any relatively small segment. As specified in **Regulatory Compliance Measure GEO-1**, the proposed project's buildings would be subject to the seismic design criteria of the most current CBC requirements that aim to prevent building collapse and reduce the impacts of seismic ground shaking. Adherence to these requirements would address injury and loss of life and building damage during and after an earthquake. The proposed project's compliance with the most current CBC requirements would also reduce the project's impacts related to subsidence. Adherence to these requirements would address the removal and replacement of site soils. Therefore, with the

implementation of **Regulatory Compliance Measure GEO-1**, impacts related to seismic ground shaking would be less than significant, and no mitigation is required.

4.4.6.4 Liquefaction and Compressible/Collapsible Soils

Impact GEO-3: Less Than Significant with Mitigation Incorporated. As discussed in detail under Threshold GEO-1(iii) above, implementation of **Mitigation Measure GEO-1** and adherence to the regulatory standards described in **Regulatory Compliance Measure GEO-1** would be required to address the proposed project's impacts with respect to liquefaction. Provided that design and remedial grading and ground improvement (as necessary) are performed in accordance with the applicable requirements in the CBC (adopted by the City as its Building Code with certain amendments), and current standards of practice in the area, excessive settlement resulting from liquefaction and compression of existing undocumented fill and some layers of loose sands and silty sands on the project site would be reduced to a less than significant level.

Threshold GEO-4: Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating direct or indirect substantial risks to life or property?

Impact GEO-4: Less Than Significant Impact. According to the Geotechnical Evaluation prepared for the proposed project, surface site soils had a "very low" potential for expansion. No recommendations are provided in the Geotechnical Evaluation related to expansive soils due to this very low potential. Therefore, impacts related to expansive soils for the proposed project would be less than significant. No mitigation is required.

Threshold GEO-5: Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

Impact GEO-5: No Impact. The proposed project would not include the use of septic tanks or alternative wastewater disposal systems because sanitary sewer and wastewater facilities are available in the vicinity of the project site. Therefore, the project would have no impact with respect to septic tanks or alternative wastewater disposal systems. No mitigation is required.

Threshold GEO-6: Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Impact GEO-6: Less Than Significant with Mitigation Incorporated. The project site contains Artificial Fill, which has no paleontological sensitivity, and Young Alluvium, Unit 2, which has low paleontological sensitivity from the surface to a depth of 10 feet and high paleontological sensitivity below 10 feet. With a maximum excavation depth of 8 feet during construction, the proposed project is expected to remain in deposits with no or low paleontological sensitivity. However, in the event that paleontological resources are encountered during construction, **Mitigation Measure GEO-2**, detailed below, would require work in the immediate area of the discovery to be halted and a qualified paleontologist to assess the discovery. These procedures would reduce potential impacts to scientifically significant nonrenewable paleontological resources encountered during construction.

4.4.7 Level of Significance Prior to Mitigation

The potential for surface fault rupture, erosion, subsidence, landslides, lateral spreading, and expansive soil is less than significant, and no mitigation is required. The potential impacts related to seismic shaking, liquefaction, and settlement due to compressible and wet soils would be potentially significant prior to mitigation. The proposed project would also have potentially significant impacts on paleontological resources prior to the implementation of mitigation.

4.4.8 Regulatory Compliance Measures and Mitigation Measures

4.4.8.1 Regulatory Compliance Measures

The following regulatory compliance measure is a requirement of the CBC that is applicable to the proposed project and is considered in the analysis of potential impacts related to geology and soils. The City of Cypress considers this requirement to be mandatory; therefore, it is not a mitigation measure.

Regulatory Compliance Measure GEO-1 **Compliance with Seismic and Standards in the Building Code.** Prior to issuance of the first building permit for the proposed buildings, the City of Cypress (City) Engineer, Building Official, or their designee, and the project soils engineer shall review the building plans to verify that the structural design conforms to the requirements of the City's latest adopted edition of the California Building Standards Code. Structures and walls shall be designed in accordance with applicable sections of the City's Building Code.

4.4.8.2 Mitigation Measures

In addition to the regulatory requirements described above, the following mitigation measures would reduce potential impacts related to seismic ground shaking, liquefaction, compressible/ collapsible soils, and paleontological resources to a less than significant level.

Mitigation Measure GEO-1 **Implementation of Geotechnical Evaluation Recommendations.** The Applicant's construction contractor shall implement the recommendations of the Geotechnical Evaluation prepared for the proposed project, as applicable, to the satisfaction of the City of Cypress' (City) Building Official, or designee. The City's Building Official, or designee, shall confirm recommendations have been implemented into the design and construction of the proposed project prior to the issuance of a building permit.

Mitigation Measure GEO-2 **Procedures for Unexpected Paleontological Resources Discoveries.** In the event that paleontological resources are encountered, work in the immediate area of the

discovery shall be halted and the Applicant shall retain a professional paleontologist who meets the qualifications established by the Society of Vertebrate Paleontology to assess the discovery. The qualified, professional paleontologist shall make recommendations regarding the treatment and disposition of the discovered resources, as well as the need for subsequent paleontological mitigation, which may include, but not be limited to, paleontological monitoring, collection of observed resources, preservation, stabilization and identification of collected resources, curation of resources into a museum repository, and preparation of a monitoring report of findings, consistent with well accepted standards, such as those established by the Society of Vertebrate Paleontology. The City of Cypress shall ensure that the recommendations from the qualified, professional paleontologist shall be followed by the Applicant

4.4.9 Level of Significance after Mitigation

With implementation of **Regulatory Compliance Measure GEO-1** and **Mitigation Measures GEO-1 and GEO-2**, all identified potentially significant impacts related to geotechnical hazards and paleontological resources would be reduced below a level of significance.

4.4.10 Cumulative Impacts

Typically, geology and soils impacts are specific to a particular project site and there is little, if any, cumulative relationship between the development of a proposed project and development within a larger cumulative area. Moreover, while seismic conditions are regional in nature, seismic impacts on a given project site are site-specific. For example, development within the project site would not alter geologic events or soil features/characteristics (such as ground shaking, seismic intensity, or soil expansion or compression). Therefore, the proposed project would not affect the level of intensity at which a seismic event on an adjacent site is experienced.

While seismic events may affect a broad region, development of the cumulative projects would not increase the intensity, frequency, or duration of seismic events or the properties of off-site geology or soils. The CBC (adopted by reference in Chapter 15.08 [Construction Codes] of the City's Municipal Code) contains provisions to safeguard against major structural failures or loss of life caused by earthquakes, liquefaction, ground shaking, landslides, and other seismically induced hazards, as codified in **Regulatory Compliance Measure GEO-1**. In addition, the Geotechnical Evaluation recommendations would reduce potential impacts related to seismic ground shaking, liquefaction, compressible/collapsible soils as required by **Mitigation Measure GEO-1.** Cumulative development projects would be required to undergo environmental review pursuant to CEQA including, as necessary, site-specific investigation of potential geologic, seismic, or soil-related impacts. It is reasonable to expect that such site-specific investigation would appropriately identify the siting, design, and construction criteria established in the CBC and/or by the City to address site-

specific geologic/soil conditions affecting future development, and that the City would condition future development to fully satisfy said criteria. Therefore, cumulative geologic, seismic, or soil-related impacts would be rendered to a less than significant level, and the project's contribution to such impacts would not be cumulatively considerable.

It is not anticipated that their development would have any geotechnical impact on the project site or the buildings that would be constructed as part of the proposed project, nor would the project have geotechnical impacts on any of the 11 related projects identified in **Table 4.A, Summary of Related Projects,** in Chapter 4.0, Existing Setting. Therefore, the proposed project and the applicable related projects would not have the potential to cause cumulatively significant adverse impacts related to geology and soils.

Potential impacts of the proposed project to unknown paleontological resources and unique geologic features, when combined with the impacts of past, present, and reasonably foreseeable probable future projects in the City of Cypress, could contribute to a cumulatively significant impact due to the overall loss of paleontological remains unique to the region. However, each development proposal received by the City is required to undergo environmental review pursuant to CEQA. If there were any potential for significant impacts to paleontological resources or unique geologic features, an investigation would be required to determine the nature and extent of the resources and identify appropriate mitigation measures.

When resources are assessed and/or protected as they are discovered, impacts to these resources are less than significant. As such, implementation of **Mitigation Measure GEO-2** would ensure that the proposed project, together with cumulative projects, would not result in significant cumulative impacts to unique paleontological resources or unique geologic features.

4.5 GREENHOUSE GAS EMISSIONS

This section provides a discussion of global climate change (GCC), existing regulations pertaining to GCC, and an analysis of greenhouse gas (GHG) emissions associated with the 5665 Plaza Drive Project (proposed project). This analysis used the CalEEMod version 2022.1. to quantify the potential GHG emissions associated with both construction and operation of the proposed project. The CalEEMod output is contained in **Appendix C** of this Draft EIR.

4.5.1 Scoping Process

The City received 2 comment letters during the public review period for the NOP. For copies of the NOP comment letters, refer to **Appendix A** of this Draft EIR. Two comment letters included comments related to GHG emissions.

The letter from Los Alamitos received on June 5, 2024, suggest that the Draft EIR should evaluate the proposed project's impact greenhouse gas emission increases from the proposed land use changes.

The Letter from Warland Investments Company and Affiliated Entities received on June 5, 2024, attached a previous letter dated March 7, 2024, stating their concerns related to the failure to meet "Less than Significant" emissions by exceeding the 3,000 MT CO2e per year SCAQMD threshold and the failure to evaluate the effects of off-site GHG emissions.

4.5.2 Regulatory Setting

4.5.2.1 Federal Regulations

Clean Air Act (CAA)(42 U.S.C. §§ 7401-7671q). The United States has historically had a voluntary approach to reducing GHG emissions. However, on April 2, 2007, the United States Supreme Court ruled that the USEPA has the authority to regulate CO_2 emissions under the Clean Air Act. While there currently are no adopted federal regulations for the control or reduction of GHG emissions, the USEPA commenced several actions in 2009 to implement a regulatory approach to global climate change.

This includes the 2009 USEPA final rule for mandatory reporting of GHGs from large GHG emission sources in the United States. Additionally, the USEPA Administrator signed an endangerment finding action in 2009 under the Clean Air Act, finding that six GHGs (CO_2, methane (CH_4), nitrous oxide (N_2O), hydroflourocarbons (HFCs), perfluourocarbons (PFCs), sulfur hexafluoride (SF_6) constitute a threat to public health and welfare, and that the combined emissions from motor vehicles cause and contribute to global climate change, leading to national GHG emission standards.

Federal Vehicle Emissions Standards. In October 2012, the USEPA and the NHTSA, on behalf of the United States Department of Transportation, issued final rules to further reduce GHG emissions and improve CAFE standards for light-duty vehicles for model years 2017 and beyond (77 Fed. Reg. 62624 [October 15, 2012). The NHTSA's CAFE standards have been enacted under the Energy Policy and Conservation Act since 1978. This national program requires automobile manufacturers to build a single light-duty national fleet that meets all requirements under both federal programs and the standards of California and other states. This program would increase fuel economy to the equivalent of 54.5 miles per gallon, limiting vehicle emissions to 163 grams of CO_2 per mile for the

fleet of cars and light-duty trucks by model year 2025 (77 Fed. Reg. 62624, 62630 [October 15, 2012]).

On March 31, 2022, the NHTSA finalized the CAFE standards for Model Years 2024–2026 Passenger Cars and Light Trucks. The amended CAFE standards would require an industry-wide fleet average of approximately 49 mpg for passenger cars and light trucks in model year 2026, by increasing fuel efficiency by 8 percent annually for model years 2024–2025, and 10 percent annually for model year 2026. The final standards are estimated to save about 234 billion gallons of gas between model years 2030 to 2050.

4.5.2.2 State Regulations

Assembly Bill 1493 (AB 1493)(2002). In a response to the transportation sector's significant contribution to California's CO2 emissions, AB 1493 was enacted on July 22, 2002. AB 1493 required the CARB to set GHG emission standards for passenger vehicles and light duty trucks (and other vehicles whose primary use is noncommercial personal transportation in the State) manufactured in 2009 and all subsequent model years. These standards (starting in model years 2009 to 2016) were approved by the CARB in 2004, but the needed waiver of California Clean Air Act Preemption was not granted by the USEPA until June 30, 2009. The CARB responded by amending its original regulation, now referred to as Low Emission Vehicle III, to take effect for model years starting in 2017 to 2025. The Trump administration revoked California's preemption waiver in 2019; however, the Biden administration restored it in 2021.

Executive Order S-3-05 (2005). Governor Arnold Schwarzenegger signed Executive Order (EO) S-3-05 on June 1, 2005, which proclaimed that California is vulnerable to the impacts of climate change. To combat those concerns, the executive order established California's GHG emissions reduction targets, which established the following goals:

- GHG emissions should be reduced to 2000 levels by 2010.
- GHG emissions should be reduced to 1990 levels by 2020.
- GHG emissions should be reduced to 80 percent below 1990 levels by 2050.

The Secretary of the California Environmental Protection Agency is required to coordinate efforts of various State agencies to collectively and efficiently reduce GHGs. A biannual progress report must be submitted to the Governor and the State Legislature disclosing the progress made toward GHG emission reduction targets. In addition, another biannual report must be submitted illustrating the impacts of global warming on California's water supply, public health, agriculture, the coastline, and forestry, and report possible mitigation and adaptation plans to address these impacts.

The Secretary of the California Environmental Protection Agency leads this Climate Action Team (CAT) made up of representatives from State agencies as well as numerous other boards and departments. The CAT members work to coordinate statewide efforts to implement global warming emission reduction programs and the State's Climate Adaptation Strategy. The CAT is also responsible for reporting on the progress made toward meeting the statewide GHG targets that were established in the executive order and further defined under AB 32, the "Global Warming Solutions Act of 2006." The first CAT Report to the Governor and the State Legislature, which was released in March 2006, laid out 46 specific emission-reduction strategies for reducing GHG

emissions and reaching the targets established in the executive order. The most recent report was released in December 2020.

Assembly Bill 32 (AB 32) (2006), California Global Warming Solutions Act. California's major initiative for reducing GHG emissions is AB 32, passed by the State Legislature on August 31, 2006. This legislation aimed at reducing GHG emissions to 1990 levels by 2020. The CARB has established the level of GHG emissions in 1990 at 427 million metric tons (MMT) of CO_2e. The emissions target of 427 MMT requires the reduction of 169 MMT from the State's projected business-as-usual 2020 emissions of 596 MMT. AB 32 required the CARB to prepare a Scoping Plan outlining the main State strategies for meeting the 2020 deadline and reducing GHGs that contribute to global climate change. The Scoping Plan was approved by the CARB on December 11, 2008, and contains the main strategies California will implement to achieve the reduction of approximately 169 MMT CO_2e, or approximately 30 percent, from the State's projected 2020 emissions level of 596 MMT CO_2e under a business-as-usual scenario (this was a reduction of 42 MMT CO_2e, or almost 10 percent from 2002–2004 average emissions). The Scoping Plan also includes CARB-recommended GHG reductions for each emissions sector of the State's GHG inventory. The Scoping Plan calls for the largest reductions in GHG emissions to be achieved by implementing the following measures and standards:

- Improved emissions standards for light-duty vehicles (estimated reductions of 31.7 MMT CO_2e)
- The Low-Carbon Fuel Standard (15.0 MMT CO_2e)
- Energy efficiency measures in buildings and appliances and the widespread development of combined heat and power systems (26.3 MMT CO_2e)
- A renewable portfolio standard for electricity production (21.3 MMT CO_2e)

The Scoping Plan identifies 18 emission-reduction measures that address cap-and-trade programs, vehicle gas standards, energy efficiency, low carbon fuel standards, renewable energy, regional transportation-related GHG targets, vehicle efficiency measures, goods movement, solar roof programs, industrial emissions, high-speed rail, green building strategies, recycling, sustainable forests, water, and air. The measures were estimated to result in a total reduction of 174 MMT CO_2e by 2020.

On August 24, 2011, the CARB unanimously approved both the new supplemental assessment and reapproved its Scoping Plan, which provides the overall roadmap and rule measures to carry out AB 32. The CARB also approved a more robust CEQA equivalent document supporting the supplemental analysis of the cap-and-trade program. The cap-and-trade program took effect on January 1, 2012, with an enforceable compliance obligation that began January 1, 2013.

The CARB approved the First Update to the Climate Change Scoping Plan on May 22, 2014. The First Update identifies opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments. The First Update defined CARB climate change priorities until 2020, and also set the groundwork to reach long-term goals set forth in EOs S-3-05 and B-16-2012. In addition, the First Update highlighted California's progress toward meeting the "near-term" 2020 GHG emission reduction goals as defined in the

initial Scoping Plan. It also evaluated how to align the State's "longer-term" GHG reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land use. CARB released a second update to the Scoping Plan, the 2017 Scoping Plan,[53] to reflect the 2030 target set by EO B-30-15 and codified by Senate Bill (SB) 32.

The 2022 Scoping Plan[54] was approved in December 2022. It assesses progress towards achieving the SB 32 2030 target and lays out a path to achieve carbon neutrality no later than 2045. The 2022 Scoping Plan focuses on outcomes needed to achieve carbon neutrality by assessing paths for clean technology, energy deployment, natural and working lands, and others, and is designed to meet the State's long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities.

Senate Bill 97 (SB 97) (2007). SB 97, signed by Governor Schwarzenegger in August 2007 (Chapter 185, Statutes of 2007; Public Resources Code, Sections 21083.05 and 21097), acknowledges climate change is a prominent environmental issue that requires analysis under the California Environmental Quality Act (CEQA). This bill directed the Governor's Office of Planning and Research to prepare, develop, and transmit to the California Resources Agency guidelines for mitigating GHG emissions or the effects of GHG emissions, as required by CEQA.

The California Natural Resources Agency adopted the amendments to the State CEQA Guidelines in November 2018, which went into effect in December 2018. The amendments do not identify a threshold of significance for GHG emissions, nor do they prescribe assessment methodologies or specific mitigation measures. The amendments encourage lead agencies to consider many factors in performing a CEQA analysis, but preserve the discretion granted by CEQA to lead agencies in making their own determinations based on substantial evidence. The amendments also encourage public agencies to make use of programmatic mitigation plans and programs when they perform individual project analyses.

Senate Bill 375 (SB 375) (2008). SB 375, the Sustainable Communities and Climate Protection Act, which establishes mechanisms for the development of regional targets for reducing passenger vehicle GHG emissions, was adopted by the State on September 30, 2008. On September 23, 2010, the CARB adopted the vehicular GHG emissions reduction targets that had been developed in consultation with the Metropolitan Planning Organization (MPO); the targets required a 6 to 15 percent reduction by 2020 and between 13 to 19 percent reduction by 2035 for each MPO. SB 375 recognizes the importance of achieving significant GHG reductions by working with cities and counties to change land use patterns and improve transportation alternatives. Through the SB 375 process, MPOs such as the Southern California Association of Governments (SCAG) will work with local jurisdictions in the development of a Sustainable Communities Strategy (SCS) designed to integrate development patterns and the transportation network in a way that reduces GHG emissions while meeting housing needs and other regional planning objectives. Pursuant to SB 375,

53 CARB. 2017. *California's 2017 Climate Change Scoping Plan*. November.

54 CARB. 2021. *2022 Scoping Plan Update*. May 10. Website: https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp.pdf (accessed June 2024).

the Los Angeles/Southern California reduction targets for per capita vehicular emissions were 8 percent by 2020 and are 19 percent by 2035, as shown in **Table 4.5.1**.

Table 4.5.1: Senate Bill 375 Regional Greenhouse Gas Emissions Reduction Targets

Metropolitan Planning Organization	By 2020 (percentage)	By 2035 (percentage)
San Francisco Bay Area	10	19
San Diego	15	19
Sacramento	7	19
Central Valley/San Joaquin	6–13	13–16
Los Angeles/Southern California	8	19

Source: California Air Resources Board (2018).

Executive Order B-30-15 (EO B-30-15) (2015). Governor Jerry Brown signed EO B-30-15 on April 29, 2015, which added the immediate target of:

- GHG emissions should be reduced to 40 percent below 1990 levels by 2030.

All State agencies with jurisdiction over sources of GHG emissions were directed to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 targets. CARB was directed to update the AB 32 Scoping Plan to reflect the 2030 target. The mid-term target is critical to help frame the suite of policy measures, regulations, planning efforts, and investments in clean technologies and infrastructure needed to continue reducing emissions.

Senate Bill 350 (SB 350) (2015) Clean Energy and Pollution Reduction Act. SB 350, signed by Governor Brown on October 7, 2015, updates and enhances AB 32 by introducing the following set of objectives in clean energy, clean air, and pollution reduction for 2030:

- Raise California's renewable portfolio standard from 33 percent to 50 percent; and
- Increasing energy efficiency in buildings by 50 percent by the year 2030.

The 50 percent renewable energy standard will be implemented by the California Public Utilities Commission for the private utilities and by the California Energy Commission for municipal utilities. Each utility must submit a procurement plan showing it will purchase clean energy to displace other non-renewable resources. The 50 percent increase in energy efficiency in buildings must be achieved through the use of existing energy efficiency retrofit funding and regulatory tools already available to State energy agencies under existing law. The addition made by this legislation requires State energy agencies to plan for, and implement those programs in a manner that achieves the energy efficiency target.

Senate Bill 32 (SB 32), California Global Warming Solutions Act of 2016, and Assembly Bill 197 (AB 197). In summer 2016, the State Legislature passed, and the Governor signed, SB 32 and AB 197. SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in Governor Brown's April 2015 EO B-30-15. SB 32 builds on AB 32 and keeps the State on the path toward

achieving its 2050 objective of reducing emissions to 80 percent below 1990 levels, consistent with an Intergovernmental Panel on Climate Change analysis of the emissions trajectory that would stabilize atmospheric GHG concentrations at 450 parts per million CO_2e and reduce the likelihood of catastrophic impacts from climate change.

The companion bill to SB 32, AB 197, provides additional direction to CARB related to the adoption of strategies to reduce GHG emissions. Additional direction in AB 197 meant to provide easier public access to air emissions data that are collected by CARB was posted in December 2016.

Senate Bill 100 (SB 100). On September 10, 2018, Governor Brown signed SB 100, which raises California's Renewables Portfolio Standard requirements to 60 percent by 2030, with interim targets, and 100 percent by 2045. The bill also establishes a State policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all State agencies by December 31, 2045. Under the bill, the State cannot increase carbon emissions elsewhere in the Western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

Executive Order B-55-18 (EO B-55-18). EO B-55-18, signed September 10, 2018, set a goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." EO B-55-18 directs CARB to work with relevant State agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. The goal of carbon neutrality by 2045 is in addition to other statewide goals, meaning not only should emissions be reduced to 80 percent below 1990 levels by 2050, but that, by no later than 2045, the remaining emissions be offset by equivalent net removals of CO_2e from the atmosphere, including through sequestration in forests, soils, and other natural landscapes.

California Building Standards Code and CALGreen Code (Cal. Code Regs. Tit. 24, pt. 11). In November 2008, the California Building Standards Commission established the California Green Building Standards Code (CALGreen Code), which sets performance standards for residential and non-residential development to reduce environmental impacts and encourage sustainable construction practices. The CALGreen Code addresses energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality. The CALGreen Code is updated every 3 years and was most recently updated in 2022 to include new mandatory measures for residential as well as non-residential uses; the new measures took effect on January 1, 2023.

California Building Efficiency Standards (Cal. Code Regs. Tit. 24, pt. 6). The California Building Standards Code, or Title 24 of the California Code of Regulations contains the regulations that govern the construction of buildings in California. Within the Building Standards Code, two parts pertain to the incorporation of both energy efficient and green building elements into land use development. Part 6 is California's Energy Efficiency Standards for Residential and Non-Residential Buildings. These standards were first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption and are updated on an approximately 3-year cycle to allow consideration and possible incorporation of new energy efficient technologies and methods. All buildings for which an application for a building permit is submitted on or after January 1, 2023,

must follow the 2022 standards. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions.

Cap and Trade. The development of a cap-and-trade program was included as a key reduction measure of the CARB AB 32 Climate Change Scoping Plan. The cap-and-trade program will help put California on the path to meet its goal of achieving an 80 percent reduction of GHG emissions from 1990 levels by 2050. The cap-and-trade emissions trading program developed by the CARB took effect on January 1, 2012, with enforceable compliance obligations beginning January 1, 2013. The cap-and-trade program aims to regulate GHG emissions from the largest producers in the State by setting a statewide firm limit, or cap, on allowable annual GHG emissions. The cap was set in 2013 at approximately 2 percent below the emissions forecast for 2020. In 2014, the cap declined approximately 2 percent. Beginning in 2015 and continuing through 2020, the cap has been declining approximately 3 percent annually. The CARB administered the first auction on November 14, 2012, with many of the qualified bidders representing corporations or organizations that produce large amounts of GHG emissions, including energy companies, agriculture and food industries, steel mills, cement companies, and universities. On January 1, 2015, compliance obligation began for distributors of transportation fuels, natural gas, and other fuels. The cap-and-trade program was initially slated to sunset in 2020, but the passage of SB 398 in 2017 extended the program through 2030.

Executive Order N-79-20 (EO N-79-20). EO N-79-20, which was signed by Governor Gavin Newsom on September 23, 2020, sets the following goals for the State: 100 percent of in-State sales of new passenger cars and trucks shall be zero-emission by 2035; 100 percent of medium- and heavy-duty vehicles in the State shall be zero-emission by 2045 for all operations where feasible and by 2035 for drayage trucks; and 100 percent of off-road vehicles and equipment in the State shall be zero-emission by 2035, where feasible.

Assembly Bill 1279. AB 1279 was signed in September of 2022, and codifies the State's goals of achieving net carbon neutrality by 2045 and maintaining net negative GHG emissions thereafter. This bill also requires California to reduce statewide GHG emissions by 85 percent compared to 1990 levels by 2045 and directs CARB to work with relevant state agencies to achieve these goals.

California Integrated Waste Management Act of 1989 (AB 939). To minimize the amount of solid waste that must be disposed of in landfills, the State Legislature passed the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. According to AB 939, all cities and counties were required to divert 25 percent of all solid waste from landfill facilities by January 1, 1995, and 50 percent by January 1, 2000. Through other statutes and regulations, this 50 percent diversion rate also applies to State agencies. In order of priority, waste reduction efforts must promote source reduction, recycling and composting, and environmentally safe transformation and land disposal. In 2011, AB 341 modified the California Integrated Waste Management Act and directed the CalRecycle to develop and adopt regulations for mandatory commercial recycling. AB 341 also established a statewide recycling goal of 75 percent; the 50 percent disposal reduction mandate still applies for cities and counties under AB 939, the Integrated Waste Management Act. In April 2016, AB 1826 further modified the California Integrated Waste Management Act, requiring businesses that generate a specified amount of organic waste per week to arrange for recycling services for that organic waste in a specified manner. Diverting organic waste from landfills reduces

emissions of CH_4. This is equivalent to reducing anaerobic decomposition of organic waste that would have otherwise occurred in landfills where organic waste is often buried with other inorganic waste.

Low Carbon Fuel Standard. In January 2007, EO S-01-07 established a low carbon fuel standard (LCFS). This executive order calls for a statewide goal to be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020, and that an LCFS for transportation fuels be established for California. The LCFS applies to all refiners, blenders, producers, or importers ("Providers") of transportation fuels in California, including fuels used by off-road construction equipment. In June 2007, CARB adopted the LCFS under AB 32 pursuant to Health and Safety Code Section 38560.5, and, in April 2009, CARB approved the new rules and carbon intensity reference values with new regulatory requirements taking effect in January 2011. The standards require providers of transportation fuels to report on the mix of fuels they provide and demonstrate they meet the LCFS intensity standards annually. This is accomplished by ensuring that the number of "credits" earned by providing fuels with a lower carbon intensity than the established baseline (or obtained from another party) is equal to or greater than the "deficits" earned from selling higher-intensity fuels. In response to certain court rulings, CARB re-adopted the LCFS regulation in September 2015, and the LCFS went into effect on January 1, 2016. In 2018, CARB approved amendments to the regulation to readjust carbon intensity benchmarks to meet California's 2030 GHG reductions targets under SB 32. These amendments include opportunities to promote zero-emission vehicle (ZEV) adoption, carbon capture and sequestration, and advanced technologies for decarbonization of the transportation sector.

Advanced Clean Cars Program. In January 2012, CARB approved the Advanced Clean Cars program, which combines the control of GHG emissions and criteria air pollutants, as well as requirements for greater numbers of ZEVs, into a single package of regulatory standards for vehicle model years 2017 through 2025. The new regulations strengthen the GHG standard for 2017 models and beyond. This will be achieved through existing technologies, the use of stronger and lighter materials, and more efficient drivetrains and engines. The program's ZEVs regulation requires battery, fuel cell, and/or plug-in hybrid electric vehicles to account for up to 15 percent of California's new vehicle sales by 2025. The program also includes a clean fuel outlet regulation designed to support the commercialization of zero-emission hydrogen fuel cell vehicles planned by vehicle manufacturers by 2015 by requiring increased numbers of hydrogen fueling stations throughout the State. The number of stations will grow as vehicle manufacturers sell more fuel cell vehicles. By 2025, when the rules will be fully implemented, the statewide fleet of new cars and light trucks will emit 40 percent fewer GHGs and 75 percent fewer smog-forming emissions than 2012 model year vehicles.

Executive Order B-48-18 (EO B-48-18). In January 2018, Governor Brown signed EO B-48-18 requiring all State entities to work with the private sector to have at least 5 million ZEVs on the road by 2030, as well as install 200 hydrogen fueling stations and 250,000 electric vehicle charging stations by 2025. It specifies that 10,000 of the electric vehicle charging stations should be direct current fast chargers. This order also requires all State entities to continue to partner with local and regional governments to streamline the installation of ZEV infrastructure. The Governor's Office of Business and Economic Development is required to publish a Plug-in Charging Station Design Guidebook and update the 2015 Hydrogen Station Permitting Guidebook to aid in these efforts. All State entities are required to participate in updating the 2016 Zero-Emissions Vehicle Action Plan to

help expand private investment in ZEV infrastructure with a focus on serving low-income and disadvantaged communities. Additionally, all State entities are to support and recommend policies and actions to expand ZEV infrastructure at residential land uses, through the LCFS Program, and recommend how to ensure affordability and accessibility for all drivers.

4.5.2.3 Regional Regulations

South Coast Air Quality Management District. SCAQMD is the responsible for air quality regulation in the South Coast Air Basin. In 2008, the SCAQMD formed a Working Group to identify GHG emissions thresholds for land use projects that could be used by local lead agencies in the Basin. The Working Group developed several different options that are contained in the SCAQMD 2008 draft guidance document titled Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans[55] that could be applied by lead agencies. On September 28, 2010, SCAQMD Working Group Meeting No. 15 provided further guidance, including a tiered approach for evaluating GHG emissions for development projects where the SCAQMD is not the lead agency. The SCAQMD has not presented a finalized version of these thresholds to the governing board.

The SCAQMD identifies the emissions level for which a project would not be expected to substantially conflict with any State legislation adopted to reduce statewide GHG emissions. As such, the utilization of a service population represents the rates of emissions needed to achieve a fair share of the State's mandated emissions reductions. Overall, the SCAQMD identifies a GHG efficiency level that, when applied statewide or to a defined geographic area, would meet the 2020 and post-2020 emissions targets as required by AB 32 and SB 32. If projects are able to achieve targeted rates of emissions per the service population, the State will be able to accommodate expected population growth and achieve economic development objectives, while also abiding by AB 32's emissions target and future post-2020 targets.

Southern California Association of Governments. On April 4, 2024, SCAG adopted Connect SoCal—the 2024–2050 Regional Transportation Plan/Sustainable Communities Strategy (2024–2050 RTP/SCS) for the SCAG region.[56] In general, the SCS outlines a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce vehicle miles traveled from automobiles and light-duty trucks and thereby reduce GHG emissions from these sources. For the SCAG region, CARB has set GHG reduction targets at 19 percent below 2005 per capita emissions levels by 2035. The RTP/SCS lays out a strategy for the region to meet these targets. Overall, the SCS is meant to provide growth strategies that will achieve the regional GHG emissions reduction targets. Land use strategies to achieve the region's targets include planning for new growth around high-quality transit areas and livable corridors, and creating neighborhood mobility areas to integrate land use and transportation and plan for more

55 SCAQMD. 2008b. *Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans.*

56 Southern California Association of Governments (SCAG). 2024. Connect SoCal: The 2024–2050 Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments. Website: https://scag.ca.gov/sites/main/files/file-attachments/23-2987-connect-socal-2024-final-complete-040424.pdf?1714175547(accessed May 13, 2024).

active lifestyles.[57] However, the SCS does not require that local General Plans, Specific Plans, or zoning be consistent with the SCS; SCAG is required to consider local land use controls when drafting the SCS.

4.5.2.4 Local Regulations

The City of Cypress does not currently have an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

4.5.3 Existing Environmental Setting

Global climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans in recent decades. The Earth's average near-surface atmospheric temperature rose 0.6 ± 0.2° Celsius or 1.1 ± 0.4° Fahrenheit in the 20th century. The prevailing scientific opinion on climate change is that most of the warming observed over the last 50 years is attributable to human activities. The increased amounts of CO_2 and other GHGs are the primary causes of the human-induced component of warming. GHGs are released by the burning of fossil fuels, land clearing, agriculture, and other activities, and lead to an increase in the greenhouse effect.[58]

GHGs are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced global climate change are:

- CO_2
- CH_4
- N_2O
- HFCs
- PFCs
- SF_6

Over the last 200 years, humans have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere, and enhancing the natural greenhouse effect, which is believed to be causing global warming. While manmade GHGs include naturally occurring GHGs such as CO_2, methane, and N_2O, some gases, like HFCs, PFCs, and SF_6 are completely new to the atmosphere.

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57 Southern California Association of Governments (SCAG). 2024. Connect SoCal: The 2024–2050 Regional Transportation Plan/Sustainable Communities Strategy of the Southern California Association of Governments. Website: https://scag.ca.gov/sites/main/files/file-attachments/23-2987-connect-socal-2024-final-complete-040424.pdf?1714175547(accessed May 13, 2024).

58 The temperature on Earth is regulated by a system commonly known as the "greenhouse effect." Just as the glass in a greenhouse lets heat from sunlight in and reduces the heat escaping, greenhouse gases like carbon dioxide, methane, and nitrous oxide in the atmosphere keep the Earth at a relatively even temperature. Without the greenhouse effect, the Earth would be a frozen globe; thus, although an excess of greenhouse gas results in global warming, the naturally occurring greenhouse effect is necessary to keep our planet at a comfortable temperature.

Certain gases, such as water vapor, are short-lived in the atmosphere. Others remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is excluded from the list of GHGs above because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation. For the purposes of this air quality analysis, the term "GHGs" will refer collectively to the six gases listed above.

These gases vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The global warming potential is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to CO_2, the most abundant GHG; the definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO_2 over a specified time period. GHG emissions are typically measured in terms of pounds or tons of "CO_2 equivalents" (CO_2e). **Table 4.5.2** shows the GWP for each type of GHG. For example, SF_6 is 23,900 times more potent at contributing to global warming than CO_2.

Table 4.5.2: Global Warming Potential of Greenhouse Gases

Gas	Atmospheric Lifetime (Years)	Global Warming Potential (100-Year Time Horizon)
Carbon Dioxide	50-200	1
Methane	12	25
Nitrous Oxide	114	310
HFC-23	270	11,700
HFC-134a	14	140
HFC-152a	1.4	140
PFC: Tetrafluoromethane (CF_4)	50,000	6,500
PFC: Hexafluoromethane (C_2F_6)	10,000	9,200
Sulfur Hexafluoride (SF_6)	3,200	23,900

Source: *Second Update to the Climate Change Scoping Plan: Building on the Framework* (CARB 2017a).
HFC = hydrofluorocarbons
PFC = perfluorocarbons

The following discussion summarizes the characteristics of the six GHGs and black carbon

4.5.3.1 Carbon Dioxide

In the atmosphere, carbon generally exists in its oxidized form, as CO_2. Natural sources of CO_2 include the respiration (breathing) of humans, animals and plants, volcanic outgassing, decomposition of organic matter and evaporation from the oceans. Human-caused sources of CO_2 include the combustion of fossil fuels and wood, waste incineration, mineral production, and deforestation. Natural sources release approximately 150 billion tons of CO_2 each year, far outweighing the 7 billion tons of man-made emissions of CO_2 each year. Nevertheless, natural removal processes, such as photosynthesis by land- and ocean-dwelling plant species, cannot keep pace with this extra input of man-made CO_2; consequently, the gas is building up in the atmosphere.

In 2021, total annual CO_2 accounted for 81.2 percent of California's overall GHG emissions.[59] Transportation is the single largest source of CO_2 in California, which is primarily composed of on-road travel. Electricity production and industrial and residential sources also make important contributions to CO_2 emissions in California.

4.5.3.2 Methane

CH_4 is produced when organic matter decomposes in environments lacking sufficient oxygen. Natural sources include wetlands, termites, and oceans. Decomposition occurring in landfills accounts for the majority of human-generated CH_4 emissions in California and in the United States as a whole. Agricultural processes such as intestinal fermentation, manure management, and rice cultivation are also significant sources of CH_4 in California. Total annual emissions of CH_4 accounted for 9.8 percent of GHG emissions in California in 2021.[60]

4.5.3.3 Nitrous Oxide

N_2O is produced naturally by a wide variety of biological sources, particularly microbial action in soils and water. Tropical soils and oceans account for the majority of natural source emissions. Nitrous oxide is a product of the reaction that occurs between nitrogen and oxygen during fuel combustion. Both mobile and stationary combustion emit N_2O, and the quantity emitted varies according to the type of fuel, technology, and pollution control device used, as well as maintenance and operating practices. Agricultural soil management and fossil fuel combustion are the primary sources of human-generated N_2O emissions in California. Nitrous oxide emissions accounted for 3.5 percent of GHG emissions in California in 2021.[61]

4.5.3.4 Hydrofluorocarbons, Perfluorocarbons, and Sulfur Hexafluoride

HFCs are primarily used as substitutes for ozone-depleting substances regulated under the Montreal Protocol.[62] PFCs and SF_6 are emitted from various industrial processes, including aluminum smelting, semiconductor manufacturing, electric power transmission and distribution, and magnesium casting. There is no aluminum or magnesium production in California; however, the rapid growth in

[59] California Air Resources Board (CARB). 2022b. GHGs Descriptions and Sources in California. Website: ww2.arb.ca.gov/ghg-descriptions-sources (accessed May 13, 2024).

[60] United States Environmental Protection Agency (USEPA). 2023. Inventory of U.S. Greenhouse Gas Emissions and Sinks. Website: https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks#:~:text=In%202021%2C%20U.S.%20greenhouse%20gas,sequestration%20from%20the%20land%20sector (accessed May 13, 2024).

[61] United States Environmental Protection Agency (USEPA). 2023. Inventory of U.S. Greenhouse Gas Emissions and Sinks. Website: https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks#:~:text=In%202021%2C%20U.S.%20greenhouse%20gas,sequestration%20from%20the%20land%20sector (accessed May 13, 2024).

[62] The Montreal Protocol is an international treaty that was approved on January 1, 1989, and was designated to protect the ozone layer by phasing out the production of several groups of halogenated hydrocarbons believed to be responsible for ozone depletion.

the semiconductor industry leads to greater use of PFCs. HFCs, PFCs, and SF_6 accounted for about 5.6 percent of GHG emissions in California in 2021.[63]

4.5.4 Emissions Sources and Inventories

4.5.4.1 Global Emissions

Worldwide emissions of GHGs in 2020 totaled 22.9 billion MT of CO_2e. Global estimates are based on country inventories developed as part of the programs of the United Nations Framework Convention on Climate Change.[64]

4.5.4.2 United States Emissions

In 2022, the year for which the most recent data are available, the United States emitted about 6,343 million metric tons of CO_2e (MMT CO_2e). Overall, emissions in 2022 increased by 1 percent relative to the 2021 total GHG emissions. This increase in total GHG emissions was driven by fossil fuel combustion due primarily to increased energy use, due inpart to the continued rebound in economic activity after the height of the COVID-19 pandemic. However, GHG emissions in 2022 were 17 percent below those of 2005 levels. Of the five major sectors—residential and commercial, agricultural, industry, transportation, and electricity generation—transportation accounted for the highest amount of GHG emissions in 2022 (approximately 28 percent), with electricity generation second at 25 percent and emissions from industry third at 23 percent.[65]

4.5.4.3 State of California Emissions

The State emitted 381.3 MMT CO_2e emissions in 2021, 12.6 MMT CO_2e higher than 2020 levels but 23.1 MMT CO_2e below the 2019 levels.[66] CARB estimates that transportation was the source of 38 percent of the State's GHG emissions in 2021, which is a 7.4 percent higher than the 2020 emissions. This increase was most likely from passenger vehicles whose activity and emissions rebounded after the COVID-19 pandemic. The next largest sources included industrial sources at approximately 19 percent and electricity generation at 16 percent. The remaining sources of GHG emissions were commercial and residential activities at 10 percent, agriculture at 8 percent, high GWP at 6 percent, and waste at 2 percent.[67]

4.5.5 Methodology

The proposed project would result in GHG emissions from construction and operational sources. Construction activities associated with the proposed project would produce combustion emissions

63 CARB. 2021. *2022 Scoping Plan Update*. May 10. Website: https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp.pdf (accessed June 2024).

64 United Nations Framework Convention on Climate Change. 2022. GHG Data from UNFCCC. Website: https://di.unfccc.int/time_series (accessed May 13, 2024).

65 USEPA. 2023. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2022. Website: https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks (accessed May 13, 2024).

66 CARB. 2023. *California Greenhouse Gas Emissions for 2000 to 2021, Trends of Emissions and Other Indicators Report*. Website: https://ww2.arb.ca.gov/sites/default/files/2023-12/2000_2021_ghg_inventory_trends.pdf (accessed May 13, 2024).

67 Ibid.

from various sources. During construction, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically use fossil-based fuels to operate. Operational activities would also generate emissions at the project site from area, mobile, stationary, waste, and water sources as well as indirect emissions from sources associated with energy consumption. This analysis used the CalEEMod version 2022.1. to quantify the potential GHG emissions associated with both construction and operation of the proposed project.

4.5.6 Thresholds of Significance

The thresholds for greenhouse gas emissions impacts used in this analysis are consistent with Appendix G of the State CEQA Guidelines and the City's Initial Study/Environmental Checklist. The proposed project may be deemed to have a significant impact with respect to GHG emissions if it would:

Threshold GHG-1: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Threshold GHG-2: Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

4.5.6.1 Regional Emissions Thresholds

To provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents, SCAQMD convened a GHG CEQA Significance Threshold Working Group (Working Group). Based on the last Working Group meeting held in September 2010 (Meeting No. 15), SCAQMD proposed to adopt a tiered approach for evaluating GHG emissions for development projects where SCAQMD is not the lead agency:

- **Tier 1. Exemptions:** If a project is exempt from CEQA, project-level and cumulative GHG emissions are less than significant.

- **Tier 2. Consistency with a locally adopted GHG Reduction Plan:** If the project complies with a GHG emissions reduction plan or mitigation program that avoids or substantially reduces GHG emissions in the project's geographic area (i.e., city or county), project-level and cumulative GHG emissions are less than significant.

- **Tier 3. Numerical Screening Threshold:** If GHG emissions are less than the numerical screening-level threshold, project-level and cumulative GHG emissions are less than significant.

  For projects that are not exempt or where no qualifying GHG reduction plans are directly applicable, SCAQMD requires an assessment of GHG emissions. SCAQMD, under Option 1, is proposing a "bright-line" screening-level threshold of 3,000 metric tons of CO_2e per year (MT CO_2e/yr) for all land use types or, under Option 2, the following land-use-specific thresholds: 1,400 MT CO_2e for commercial projects, 3,500 MT CO_2e for residential projects, or 3,000 MT CO_2e for mixed-use projects. This bright-line threshold is based on a review of the Governor's Office of Planning and Research database of CEQA projects. Based on their review of 711 CEQA

projects, 90 percent of CEQA projects would exceed the bright-line thresholds identified above. Therefore, projects that do not exceed the bright-line threshold would have a nominal and therefore less than cumulatively considerable impact on GHG emissions.

- **Tier 4. Performance Standards:** If emissions exceed the numerical screening threshold, a more detailed review of the project's GHG emissions is warranted. SCAQMD has proposed an efficiency target for projects that exceed the bright-line threshold. The current recommended approach is per capita efficiency targets. SCAQMD is not recommending use of a percentage emissions reduction target. Instead, SCAQMD proposes a 2020 efficiency target of 4.8 MT CO_2e/yr per service population (MT CO_2e/yr/SP) for project-level analyses and 6.6 MT CO_2e/yr/SP for plan-level projects (e.g., program-level projects such as general plans). In addition, GHG reductions by the SB 375 target date of 2035 would be approximately 40 percent. This 40 percent reduction was applied to the 2020 targets, resulting in an efficiency threshold for plans of 4.1 MT CO_2e/yr/SP and an efficiency threshold at the project level of 3.0 MT CO_2e/yr/SP. The GHG efficiency metric divides annualized GHG emissions by the service population, which is the sum of residents and employees, per the following equation:

  Rate of Emission: GHG Emissions (MT CO_2e/yr) ÷ Service Population

  The efficiency evaluation consists of comparing the project's efficiency metric to efficiency targets. Efficiency targets represent the maximum quantity of emissions each resident and employee in the State of California could emit in various years based on emission levels necessary to achieve the statewide GHG emissions reduction goals. A project that results in a lower rate of emissions would be more efficient than a project with a higher rate of emissions, based on the same service population. The metric considers GHG reduction measures integrated into a project's design and operation (or through mitigation).

The 3,000 MT CO_2e/yr threshold is based on a 90 percent emission "capture" rate methodology. Prior to its use by the SCAQMD, the 90 percent emissions capture approach was one of the options suggested by the California Air Pollution Control Officers Association in its CEQA & Climate Change white paper.[68] A 90 percent emission capture rate means that unmitigated GHG emissions from the top 90 percent of all GHG-producing projects within a geographic area—the South Coast Air Basin (Basin) in this instance—would be subject to a detailed analysis of potential environmental impacts from GHG emissions, while the bottom 10 percent of all GHG-producing projects would be excluded from detailed analysis. A GHG significance threshold based on a 90 percent emission capture rate is appropriate to address the long-term adverse impacts associated with global climate change, because medium and large projects will be required to implement measures to reduce GHG emissions, while small projects, which are generally infill development projects that are not the focus of the State's GHG reduction targets, are allowed to proceed. Further, a 90 percent emission capture rate sets the emission threshold low enough to capture a substantial proportion of future development projects and demonstrate that cumulative emissions reductions are being achieved

[68] SCAQMD. 2008b. *Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans*. December 5. Website: http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgboardsynopsis.pdf?sfvrsn=2 (accessed May 13, 2024).

while setting the emission threshold high enough to exclude small projects that will, in aggregate, contribute approximate 1 percent of projected statewide GHG emissions in the Year 2050.[69]

In setting the threshold at 3,000 MT CO_2e/yr, SCAQMD researched a database of projects kept by the Governor's Office of Planning and Research. That database contained 798 projects, 87 of which were removed because they were very large projects and/or outliers that would skew emissions values too high, leaving 711 as the sample population to use in determining the 90th percentile capture rate.[70] The SCAQMD analysis of the 711 projects within the sample population combined commercial, residential, and mixed-use projects. Emissions from each of these projects were calculated by SCAQMD to provide a consistent method of emissions calculations across the sample population and from projects within the sample population. In calculating the emissions, the SCAQMD analysis determined that the 90th percentile ranged between 2,983 to 3,143 MT CO_2e/yr.[71] The SCAQMD set its significance threshold at the low-end value of the range when rounded to the nearest hundred tons of emissions (i.e., 3,000 MT CO_2e/yr) to define small projects that are considered less than significant and do not need to provide further analysis.

The City understands that the 3,000 MT CO_2e/yr threshold for residential/commercial uses was proposed by SCAQMD a decade ago and was adopted as an interim policy; however, no permanent, superseding policy or threshold has since been adopted. The 3,000 MT CO_2e/yr threshold was developed and recommended by SCAQMD, an expert agency, based on substantial evidence as provided in the Draft Guidance Document – Interim CEQA Greenhouse Gas Significance Threshold[72] document and subsequent Working Group meetings (the latest of which took place in 2010). SCAQMD has not withdrawn its support of the interim threshold and all documentation supporting the interim threshold remains on the SCAQMD website on a page that provides guidance to CEQA practitioners for air quality analysis (and where all SCAQMD significance thresholds for regional and local criteria pollutants and toxic air contaminants also are listed). Further, as stated by SCAQMD, this threshold "uses the Executive Order S-3-05 goal [80 percent below 1990 levels by 2050] as the basis for deriving the screening level" and, thus, remains valid for use in 2023.[73] Lastly, this threshold has been used for hundreds, if not thousands, of GHG analyses performed for projects within the Basin. Although the threshold was never formally adopted by SCAQMD and is therefore not considered legally binding, it has been included in the discussion below in order to provide full disclosure and consistency with other CEQA documents produced by the City and other jurisdictions within the Basin. This inclusion complements the analysis of compliance with applicable air quality

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69 SCAQMD. 2008b. *Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans*. December 5. Website: http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgboardsynopsis.pdf?sfvrsn=2 (accessed May 13, 2024).

70 SCAQMD. 2009. *Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #13*. August 26. Website: http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-13/ghg-meeting-13-minutes.pdf?sfvrsn=2 (accessed May 13, 2024).

71 Ibid.

72 SCAQMD. 2008a. *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*. October. Website: http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmente.pdf?sfvrsn=2 (accessed May 13, 2024).

73 Ibid.

documents, such as the 2022 Scoping Plan and the 2020–2045 RTP/SCS presented under Threshold GHG-2 below.

For the purpose of this analysis, the proposed project will first be compared to the SCAQMD screening-level Tier 3 Numerical Screening Threshold of 3,000 MT CO_2e/yr for all land use type projects. If it is determined that the proposed project is estimated to exceed this numerical threshold, it will then be compared to the SCAQMD-recommended 2035 efficiency-based threshold of 4.1 MT CO_2e/yr per service population for plan-level projects. As previously stated, the proposed project is also evaluated for compliance with the 2022.

4.5.7 Project Impacts

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

Impact GHG-1: Less Than Significant Impact. This section describes the potential construction- and operational-related GHG emissions associated with the proposed project. SCAQMD has not addressed emission thresholds for construction in its *CEQA Air Quality Handbook*; however, SCAQMD requires quantification and disclosure. Thus, this section discusses construction emissions.

Construction Greenhouse Emissions. Demolition and construction activities associated with the proposed project would produce combustion emissions from various sources. During construction, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically use fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO_2, CH_4, and N_2O. Furthermore, CH_4 is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

The SCAQMD does not have an adopted threshold of significance for construction-related GHG emissions. However, lead agencies are required to quantify and disclose GHG emissions that would occur during construction. The SCAQMD suggests that construction GHG emissions be amortized over the life of the project (defined as 30 years), added to the operational emissions, and compared to the applicable interim GHG significance threshold tier.

Using the CalEEMod, it is estimated that the proposed project would generate a total of approximately 536.4 MT CO_2e during construction of the project. When annualized over the 30-year life of the project, annual emissions would be 17.9 MT CO_2e.

Operational Greenhouse House Gas Emissions. Long-term operation of the proposed project would generate GHG emissions from area, mobile, stationary, waste, and water sources as well as indirect emissions from sources associated with energy consumption. Mobile-source GHG emissions would include project-generated vehicle trips. Area-source emissions would be associated with activities such as landscaping and maintenance on the project site, and other sources. Waste source emissions generated by the proposed project include energy generated by landfilling and other methods of disposal related to transporting and managing project-generated waste. In addition, water source emissions associated with the proposed project are generated by water supply and conveyance, water treatment, water distribution, and wastewater treatment.

Long-term operation emissions associated with the proposed project were calculated using CalEEMod. The proposed project analysis was conducted using land use codes *Refrigerated Warehouse No-Rail* and *Parking Lot*. Trip generation rates used in CalEEMod for the proposed project were based on the project's trip generation estimates identified in the proposed project's Traffic Analysis.[74] The proposed project would generate a total of 406 average daily trips (ADT), including 262 passenger vehicle trips, 50 two-axle truck trips, 16 three-axle truck trips, and 78 four-axle truck trips, which were included in CalEEMod. This analysis assumes that the four+-axle truck trips would travel approximately 40 miles. To be conservative, separate CalEEMod analyses were prepared for the operational analysis for the proposed project. One CalEEMod run evaluated operational and vehicle trip emissions and another CalEEMod run evaluated four+-axle truck trip emissions. When project-specific data were not available, default assumptions from CalEEMod were used to estimate project emissions.

In addition, long-term operational emissions associated with the existing uses were evaluated in CalEEMod. The project site is developed with an existing 150,626-square-foot office building; however, a total of 61,616 square feet (41 percent) of space was occupied as of August 2022. It was conservatively assumed in the Traffic Analysis that only 37,657 (25 percent) of the building was occupied. Therefore, the existing uses analysis evaluates 37,657 square feet of existing office uses and the Traffic Analysis identifies an existing trip generation of 408 ADT associated with the 37,657-square-foot occupied space.

Table 4.5.3 shows the calculated GHG emissions for the proposed project. As shown in **Table 4.5.3**, mobile sources would be the largest source of GHG emissions for the proposed project at approximately 61 percent of the total project emissions. Energy sources would be the next largest category at approximately 33 percent. Water sources would be approximately 4 percent of the total emissions and waste sources would be approximately 2 percent of the total emissions. Area sources would be approximately less than 1 percent of the total emissions.

As discussed above, according to SCAQMD, a project would have less than significant GHG emissions if it would result in operational-related GHG emissions of less than 3,000 MT CO_2e/yr. Based on the analysis results, the proposed project would result in a net increase of 2,925.9 MT CO_2e/yr over existing conditions, which would be below the numeric threshold of 3,000 MT CO_2e. Therefore, operation of the proposed project would not generate significant GHG emissions that would have a significant effect on the environment. As such, impacts related to operational GHG emissions would be less than significant. No mitigation is required.

[74] Urban Crossroads. 2023. *Goodman Commerce Center Traffic Analysis*. November 21, 2023.

Table 4.5.3: GHG Emissions (MT/yr)

Emission Type	Operational Emissions				
	CO_2	CH_4	N_2O	CO_2e	Percentage of Total
Existing Uses GHG Emissions					
Mobile Sources	407.7	<0.1	<0.1	414.4	63
Area Sources	0.8	<0.1	<0.1	0.8	<1
Energy Sources	212.6	<0.1	<0.1	213.3	32
Water Source	13.1	0.2	<0.1	20.1	3
Waste Source	3.1	0.3	0.0	10.9	2
Total Existing Uses Emissions				659.5	-
Proposed Project GHG Emissions					
Mobile Sources	330.8	<0.1	<0.1	336.1	9
Mobile Sources – Heavy Heavy Duty Trucks	1,778.1	0.1	0.3	1,867.7	52
Area Sources	3.9	<0.1	<0.1	3.9	<1
Energy Sources	1,166.0	0.1	<0.1	1,170.1	33
Water Sources	87.0	1.4	<0.1	133.4	4
Waste Sources	16.1	1.6	0.0	56.2	2
Total Operational Emissions				**3,567.4**	**100**
Amortized Construction Emissions				**17.9**	**-**
Total Annual Emissions				**3,585.3**	**-**
Total Net Annual Emissions				**2,925.9**	
SCAQMD Threshold				**3,000**	**-**
Exceeds Threshold?				**No**	**-**

Source: LSA (June 2024).
GHG = greenhouse gas
MT/yr = metric tons per year
SCAQMD = South Coast Air Quality Management District

Threshold GHG-2: Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Impact GHG-2: Less Than Significant Impact. The City, as a lead agency, may assess the significance of GHG emissions by determining a project's consistency with a local GHG reduction plan that qualifies under Section 15183.5 of the State CEQA Guidelines. The City of Cypress has not adopted a GHG reduction plan. In addition, the City has not completed the GHG inventory, benchmarking, and goal-setting process required to identify a reduction target and to take advantage of the streamlining provisions contained in the State CEQA Guidelines amendments adopted in SB 97.

2022 Scoping Plan. EO B-30-15 added the immediate target of reducing GHG emissions to 40 percent below 1990 levels by 2030. CARB released a second update to the Scoping Plan, the 2017 Scoping Plan, to reflect the 2030 target set by EO B-30-15 and codified by Senate Bill (SB) 32. SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in EO B-30-15. The companion bill to SB 32, AB 197, provides additional direction to the CARB related to the adoption of strategies to reduce GHG emissions. Additional direction in AB 197 intended to provide easier public access to air emissions data that are collected by CARB was posted in December 2016.

The 2022 Scoping Plan Update[75] assesses progress toward the statutory 2030 target, while laying out a path to achieving carbon neutrality no later than 2045. The 2022 Scoping Plan Update focuses on outcomes needed to achieve carbon neutrality by assessing paths for clean technology, energy deployment, natural and working lands, and others, and is designed to meet the State's long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities.

As identified above, the 2022 Scoping Plan Update contains GHG reduction measures that work toward reducing GHG emissions, consistent with the targets set by EO B-30-15 and codified by SB 32 and AB 197. The measures applicable to the proposed project include energy efficiency measures, water conservation and efficiency measures, and transportation and motor vehicle measures, as discussed below.

Energy efficiency measures are intended to maximize energy-efficient building and appliance standards; pursue additional efficiency efforts, including new technologies and new policy and implementation mechanisms; and pursue comparable investment in energy efficiency from all retail providers of electricity in California. In addition, these measures are designed to expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings. As identified above, the proposed project would comply with the latest California Green Building Standards (CALGreen Code) regarding energy conservation and green building infrastructure. Therefore, the proposed project would comply with applicable energy measures.

Water conservation and efficiency measures are intended to continue efficiency programs and use cleaner energy sources to move and treat water. Increasing the efficiency of water transport and reducing water use would reduce GHG emissions. As noted above, the project would be required to comply with the latest CALGreen Code standards, which include a variety of different measures, including reduction of wastewater and water use. The proposed project would also include drought tolerant landscape and would be required to comply with the California Model Water Efficient Landscape Ordinance. Therefore, the proposed project would not conflict with any of the water conservation and efficiency measures.

The goal of transportation and motor vehicle measures is to develop regional GHG emission reduction targets for passenger vehicles. Specific regional emission targets for transportation emissions would not directly apply to the proposed project. However, vehicles traveling to the project site would comply with the Pavley II (LEV III) Advanced Clean Cars Program. The second phase of Pavley standards will reduce GHG emissions from new cars by 34 percent from 2016 levels by 2025. Therefore, the proposed project would not conflict with the identified transportation and motor vehicle measures.

The proposed project would comply with existing State regulations adopted to achieve the overall GHG emissions reduction goals.

[75] California Air Resources Board (CARB). 2022. California's 2022 Climate Change Scoping Plan. November.

2024–2050 RTP/SCS. The SCAG 2024–2050 RTP/SCS was adopted on April 4, 2024. SCAG's RTP/SCS identifies that land use strategies that focus on new housing and job growth in areas served by high-quality transit and other opportunity areas would be consistent with a land use development pattern that supports and complements the proposed transportation network. The core vision in the 2024–2050 RTP/SCS is to better manage the existing transportation system through design management strategies, integrate land use decisions and technological advancements, create complete streets that are safe to all roadway users, preserve the transportation system, and expand transit and foster development in transit-oriented communities. The 2024–2050 RTP/SCS contains transportation projects to help more efficiently distribute population, housing, and employment growth, as well as a forecasted development pattern that is generally consistent with regional-level General Plan data. The forecasted development pattern, when integrated with the financially constrained transportation investments identified in the 2024–2050 RTP/SCS, would reach the regional target of reducing GHG emissions from automobiles and light-duty trucks by 19 percent per capita by 2035 (compared to 2005 levels). The 2024–2050 RTP/SCS does not require that local General Plans, Specific Plans, or zoning be consistent with the 2024–2050 RTP/SCS, but it does provide incentives for consistency to governments and developers.

Implementing SCAG's RTP/SCS will greatly reduce the regional GHG emissions from transportation, helping to achieve statewide emissions reduction targets. The proposed project would not conflict with the stated goals of the RTP/SCS; therefore, the proposed project would not interfere with SCAG's ability to achieve the region's GHG reduction targets of 19 percent below 2005 per capita emissions levels by 2035, and it can be assumed that regional mobile emissions would decrease in line with the goals of the RTP/SCS. Furthermore, the proposed project is not regionally significant per State CEQA Guidelines Section 15206, and, as such, it would not conflict with the SCAG RTP/SCS targets since those targets were established and are applicable on a regional level.

The proposed project would consist of a 191,394-square-foot light industrial building. Based on the nature of the proposed project, it is anticipated that implementation of the proposed project would not interfere with SCAG's ability to implement the regional strategies outlined in the RTP/SCS. Therefore, the proposed project would not conflict with plans, policies, or regulations adopted for the purpose of reducing GHG emissions. Impacts would be less than significant, and no mitigation is required.

4.5.8 Level of Significance Prior to Mitigation

The proposed project would not result in any significant impacts related to GHG emissions, and no mitigation is required.

4.5.9 Regulatory Compliance Measures and Mitigation Measures

The proposed project would not result in any significant impacts related to GHG emissions, and no mitigation is required.

4.5.10 Level of Significance after Mitigation

The proposed project would not result in any significant impacts related to GHG emissions.

4.5.11 Cumulative Impacts

Cumulative impacts are the collective impacts of one or more past, present, or reasonably foreseeable probable future projects, that when combined, result in adverse changes to the environment. Climate change is a global environmental problem in which: (1) any given development project contributes only a small portion of any net increase in GHGs, and (2) global growth is continuing to contribute large amounts of GHGs across the world. Land use projects may contribute to the phenomenon of global climate change in ways that would be experienced worldwide, and with some specific effects felt in California. However, no scientific study has established a direct causal link between individual land use project impacts and global warming.

Table 4.1: Summary of Cumulative Projects identifies the past, present, and reasonably foreseeable probable future projects that when considered with the proposed project could result in cumulative impacts. The analysis of impacts related to GHG emissions is inherently cumulative. Potential cumulative impacts would occur if the proposed project, when considered with the cumulative projects would result in significant impacts to GHGs. As discussed in Section 4.5.7, while the proposed project would generate GHGs as part of project construction and operations, these emissions would not exceed applicable thresholds. In addition, the proposed project would not conflict with applicable statewide and regional climate action plans and policies. Therefore, the proposed project's GHG emissions would not be cumulatively considerable and cumulative impacts associated with the proposed project would be less than significant.

4.6 NOISE

This section evaluates the potential short-term and long-term noise impacts associated with the construction and operation of the 5665 Plaza Drive Project (proposed project). This section is based in part on information provided in the Noise Element of the City of Cypress General Plan. The assumptions used in the noise analysis and the noise modeling results are provided in **Appendix G** of this Draft EIR.

4.6.1 Scoping Process

The City received 3 comment letters during the public review period for the NOP. For copies of the NOP comment letters, refer to **Appendix A** of this Draft EIR. One comment letter included comments related to noise.

The letter from Los Alamitos received on June 5, 2024, suggest that the Draft EIR should evaluate the proposed project's noise impact from the proposed land use change, proximity to sensitive receptors, and maximum noise levels indicates in the applicable General Plans (including the City of Los Alamitos General Plan).

The Letter from Warland Investments Company and Affiliated Entities received on June 5, 2024, suggest that the proposed project has a foreseeable use as a logistics center, stating that logistics centers can generate more significant noise impacts than typical warehousing projects.

4.6.2 Regulatory Setting

4.6.2.1 Federal Regulations

Federal Transit Administration. The USDOT Federal Transit Administration (FTA) identifies guidelines for the maximum acceptable vibration levels for different types of land uses. These guidelines are based on the potential for interference or annoyance from vibration levels in a building and the potential for building damage. According to the FTA, ground vibrations from construction activities generally do not reach levels that can damage structures, but they can achieve the audible and feel-able ranges in buildings very close to the construction site. Exceptions include non-engineered timber and masonry buildings such as residential buildings and old or fragile buildings, where special care must be taken to avoid damage. Construction activity can result in varying degrees of ground-borne vibration, depending on the equipment and methods used, distance to the affected structures, and soil type. Construction vibration is generally associated with pile driving and rock blasting. Other construction equipment, such as air compressors, light trucks, and hydraulic loaders, generates little or no ground vibration.

4.6.2.2 State Regulations

Noise Control Act (Health & Safety Code §§ 46000-46080). The California Noise Control Act states that excessive noise is a serious hazard to public health and welfare and that it is the policy of the State to provide an environment for all Californians that is free from noise that jeopardizes their health or welfare. The goal is to minimize the number of people that would be exposed to excessive noise but not create an environment completely free from any noise.

State of California General Plan Guidelines. The State of California regulates vehicular and freeway noise affecting classrooms, sets standards for sound transmission and occupational noise control, and identifies noise insulation standards and airport noise/land-use compatibility criteria. The State of California OPR's 2017 *General Plan Guidelines* (OPR 2017), also provide guidance for the acceptability of projects within specific Community Noise Equivalent Level (CNEL)/day-night average noise level (L_{dn}) contours. The General Plan Guidelines present adjustment factors that may be used in order to arrive at noise acceptability standards that reflect the noise control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution.

4.6.2.3 Regional Regulations

There are no regional regulations related to noise that are applicable to the proposed project.

4.6.2.4 Local Regulations

City of Cypress General Plan. The development of effective strategies to reduce impacts of excessive noise is an essential part of the land use planning process. Since 1971, the Noise Element has been one of the seven mandatory elements of a General Plan. The Noise Element requires that noise sources be considered in establishing land use patterns so as to minimize exposure of residents to excessive noise. The Noise Element of the City's General Plan[76] works to achieve and maintain environmental noise levels compatible with land use by establishing goals, policies, and programs to ensure that Cypress residents will be protected from excessive noise. The City's Noise Element serves as a guideline for compliance with the State's noise insulation standards. Applicable Noise Element objectives and policies include the following:

- **N-1** Reduce noise impacts from transportation noise sources.
- **N-2** Incorporate noise considerations into land use planning decisions.
- **N-3** Minimize noise spillover from commercial uses into nearby residential neighborhoods.
- **N-4** Minimize the noise impacts associated with the development of residential units above ground floor commercial uses in mixed use developments.
- **N-5** Develop measures to control non-transportation noise impacts.

Additionally, the City's General Plan Noise Element has established interior and exterior noise standards for various land use categories shown in **Table 4.6.1**. As shown in **Table 4.6.1**, the City's exterior and interior noise standards are 50–60 A-weighted decibels (dBA) CNEL and 45–55 dBA CNEL, respectively, for single- and multifamily residences. It should be noted that the City's exterior noise standard only applies to private yards of single-family residences, private patios, or balconies

[76] City of Cypress. 2001. *City of Cypress General Plan* Noise Element. <https://www.cypressca. org/home/showpublisheddocument/718/636123119313270000> (accessed June 3, 2023).

Table 4.6.1: City of Cypress Interior and Exterior Noise Standards

Land Use Categories		dBA CNEL	
Categories	**Uses**	**Interior[1]**	**Exterior[2]**
Residential	Single Family Duplex, Multiple Family	45[3]–55	50–60
	Mobile Home	45	65[4]
Commercial Industrial	Hotel, Motel, Transient Lodging	45	--
	Commercial Retail, Bank, Restaurant	55	--
	Office Building, Research and Development, Professional Offices, City Office Building	50	--
	Amphitheater, Concert Hall Auditorium, Meeting Hall	45	--
	Gymnasium (Multipurpose)	50	--
	Sports Club	55	--
	Manufacturing, Warehousing, Wholesale, Utilities	65	--
	Movie Theaters	45	--
Institutional	Hospital, Schools' Classrooms	45	65
	Church, Library	45	--
Open Space	Parks	--	65

Source: City of Cypress General Plan Noise Element, Table N-3.
[1] Indoor environmental including: bedrooms, living areas, bathrooms, toilets, closets, corridors.
[2] Outdoor environments limited to: private yards of single-family residences, private patios, or balconies of multifamily residences which are served by a means of exit from inside the dwelling (balconies 6 ft deep or less are exempt), mobile home parks, park picnic areas, and school playgrounds.
[3] Noise level requirement with closed windows. Mechanical ventilation system or other means of natural ventilation shall be provided as of Chapter 12, Section 1205 of the Uniform Building Code.
[4] Exterior noise levels should be such that interior noise levels will not exceed 45 dBA CNEL.
CNEL = Community Noise Equivalent Level
dBA = A-weighted decibels

of multifamily residences which are served by a means of exit from inside the dwelling, mobile home parks, park picnic areas, and school playgrounds. Multifamily residences with balconies that are 6 feet deep or less are exempt from the City's exterior noise standard. Although the City's interior noise standard is 45–55 dBA CNEL, the interior noise standard of 45 dBA CNEL was used for a conservative noise analysis.

Although the City has not adopted exterior noise standards for hotels, movie theaters, and commercial uses, the City has established an interior noise standard of 45 dBA CNEL for hotels and movie theaters and an interior noise standard of 55 dBA CNEL for commercial retail and restaurant uses.

City of Cypress Municipal Code. The Cypress Municipal Code Chapter 13, Article VII, Sections 13-64 through 13-79, establish noise standards and enforcement procedures to enforce the reduction of "obnoxious or offensive" noises.

More specifically, Chapter 13, Article VII, Sections 13-67 through 13-69, establish the noise zone designations, exterior noise level standards, and interior noise level standards. Section 13-67 specifies that residential properties in the City are assigned to the following noise zones:

> **Noise Zone 1:** All residential properties zoned RS-15000 or RS-6000 (low-density residential uses with a maximum of 5 dwelling units per gross acre).
>
> **Noise Zone 2:** All residential property not in Noise Zone 1.

Section 13-68 (a), as shown in **Table 4.6.2**, presents the exterior noise level standards for Noise Zone 2, which would apply to the proposed project as the nearest sensitive uses are not zoned RS-15000 or RS-6000. In the event the alleged offensive noise consists of impact noise, simple tone noise, speech, music, or any combination thereof, each of the above noise levels shall be reduced by 5 dBA.

Table 4.6.2: Exterior Noise Level Standards

Noise Zone	Noise Level (dBA L_{eq})	Time Period
1	55	7:00 a.m. – 10:00 p.m.
	50	10:00 p.m. – 7:00 a.m.
2	60	7:00 a.m. – 10:00 p.m.
	55	10:00 p.m. – 7:00 a.m.

Source: City of Cypress Municipal Code Section 13-68 (a) (1976).
dBA = A-weighted decibels
L_{eq} = Average Hourly Noise Level

Section 13-68 of the Cypress Municipal Code goes on to state in subsection (b) the following:

> "It shall be unlawful for any person at any location within the incorporated area of the city to create any noise, or to allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person, when the foregoing causes the noise level, when measured on any other residential property, either incorporated or unincorporated, to exceed:"
>
> (1) The noise standard for a cumulative period of more than 30 minutes in any hour; or
>
> (2) The noise standard plus 5 dB(A) for a cumulative period of more than 15 minutes in any hour; or
>
> (3) The noise standard plus 10 dB(A) for a cumulative period of more than 5 minutes in any hour; or
>
> (4) The noise standard plus 15 dB(A) for a cumulative period of more than 1 minute in any hour; or
>
> (5) The noise standard plus 20 dB(A) for any period of time.

Subsection (c) also specifies the following:

> "In the event the ambient noise level exceeds either of the first four (4) noise limit categories above, the cumulative period applicable to said category shall be increased to reflect said ambient noise level. In the event the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level."

Section 13-69(a), as shown in **Table 4.6.3**, presents the interior noise level standards for all residential zones.

Table 4.6.3: Interior Noise Level Standards

Noise Zone	Noise Level (dBA L_{eq})	Time Period
1 and 2	55	7:00 a.m. – 10:00 p.m.
	45	10:00 p.m. – 7:00 a.m.

Source: City of Cypress Municipal Code (1976).
dBA = A-weighted decibels
L_{eq} = Average Hourly Noise Level

Section 13-69(a) also states the following for the noise levels shown in **Table 4.6.3**:

> "In the event the alleged offensive noise consists of impact noise, simple tone noise, speech, music, or any combination thereof, each of the above noise levels shall be reduced by five (5) dBA."

Section 13-69(b) of the Cypress Municipal Code states the following:

> "It shall be unlawful for any person at any location within the incorporated area of the city to create any noise, or to allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person, when the foregoing causes the noise level, when measured on any other residential property, either incorporated or unincorporated, to exceed:
>
> (1) The interior noise standard for a cumulative period of more than 5 minutes in any hour; or
>
> (2) The interior noise standard plus 5 dB(A) for a cumulative period of more than 1 minute in any hour; or
>
> (3) The interior noise standard plus 10 dB(A) for any period of time."

Subsection (c) also specifies the following:

> "In the event the ambient noise level exceeds either of the first two (2) noise limit categories above, the cumulative period applicable to said category shall be increased to reflect said ambient noise level. In the event the ambient noise level exceeds the third noise limit category, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level."

Section 13-70, Special Provisions, of the City's Municipal Code specifies that construction activities are exempt from the provisions listed above; however, it regulates the timing of construction activities. According to the Municipal Code, construction activities shall not take place between the hours of 8:00 p.m. and 7:00 a.m. on weekdays, before 9:00 a.m. and after 8:00 p.m. on Saturday, or at any time on Sunday or a federal holiday.

Section 13-71, Schools, hospitals and churches; special provisions, of the Municipal Code states the following:

> "It shall be unlawful for any person to create any noise which causes the noise level at any school, hospital or church while the same is in use, to exceed the noise limits as specified in section 13-68 prescribed for the assigned noise zone in which the school, hospital or church is located, or which noise level unreasonably interferes with the use of such institutions or which unreasonably disturbs or annoys patients in the hospital, provided conspicuous signs are displayed in three (3) separate locations within one-tenth (0.1) of a mile of the institution indicating the presence of a school, church or hospital."

Vibration Standards. Due to the lack of vibration standards within the City's General Plan or Municipal Code, vibration standards included in the FTA's 2018 *Transit Noise and Vibration Impact Assessment Manual* (FTA Manual) are used in this analysis for ground-borne vibration impacts, as shown in **Table 4.6.4**.

Table 4.6.4: Construction Vibration Damage Criteria

Building Category	PPV (in/sec)
Reinforced concrete, steel, or timber (no plaster)	0.50
Engineered concrete and masonry (no plaster)	0.30
Nonengineered timber and masonry buildings	0.20
Buildings extremely susceptible to vibration damage	0.12

Source: *Transit Noise and Vibration Impact Assessment Manual*, Table 12-3 (FTA 2018).
[1] RMS vibration velocity in decibels (VdB) re 1 micro-inch/second.
FTA = Federal Transit Administration
in/sec = inches per second
L_V = velocity in decibels
PPV = peak particle velocity
RMS = root-mean-square
VdB = vibration velocity in decibels

The criteria for environmental impact from ground-borne vibration and noise are based on the maximum levels for a single event. **Table 4.6.4** lists the potential vibration damage criteria associated with construction activities, as suggested in the FTA Manual.

The FTA Manual guidelines show that a vibration level of up to 0.5 inch per second (in/sec) in peak particle velocity (PPV) is considered safe for buildings consisting of reinforced concrete, steel, or timber (no plaster), and would not result in any construction vibration damage. For a nonengineered timber and masonry building, the construction vibration damage criterion is 0.2 in/sec in PPV.

4.6.3 Existing Environmental Setting

4.6.3.1 Overview of the Existing Noise Environment

The primary existing noise sources in the vicinity of the project site are associated with surface streets such as Valley View Street and Katella Avenue and include automobile and truck activities.

4.6.3.2 Existing Sensitive Land Uses in the Project Vicinity

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Noise-sensitive land uses include residences, hospitals, school classrooms,

churches, libraries, and parks. The closest noise-sensitive use along Plaza Drive is an existing hotel located 130 feet from the roadway. Land uses surrounding the project site include light industrial uses to the uses to the north, east, and west and office uses to the south. Additionally, two light industrial buildings are currently under construction directly east of the project site.

4.6.3.3 Existing Noise Levels

In order to assess the existing noise conditions in the area, long-term (24-hour) noise-level measurements were conducted on October 10 and 11, 2023, using three (3) Larson Davis Spark 706RC Dosimeters at ~~four~~ three locations near the edge of the project site. **Figure 4.6.1, Noise Monitoring Locations,** shows the long-term noise monitoring locations. **Table 4.6.5** provides a summary of the measured hourly noise levels and calculated CNEL level from the long-term noise level measurements as well as a brief description of the locations where the measurements were collected. As shown in **Table 4.6.5**, the calculated CNEL levels range from 54.3 dBA CNEL to 62.3 dBA CNEL. Hourly noise levels at surrounding noise-sensitive uses are as low as 41.8 dBA equivalent continuous sound level (L_{eq}) during nighttime hours and 48.8 dBA L_{eq} during daytime hours.

4.6.3.4 Existing Aircraft Noise Levels

The Joint Forces Training Base (JFTB) Los Alamitos is located approximately 0.4 mile southwest of the project site in the City of Los Alamitos. The noise contour boundaries of JFTB show that the project site is located outside of Noise Impact Zone 2 (60 dB CNEL or greater).

4.6.4 Methodology

Evaluation of noise and vibration impacts associated with the proposed project includes the following:

- Determination of the short-term construction noise and vibration impacts.
- Determination of the long-term off-site and on-site traffic noise impacts.
- Determination of the long-term stationary noise impacts from project operations.
- Determination of the required mitigation measures to reduce short-term construction–related noise and vibration impacts and long-term stationary and mobile source noise impacts.

The evaluation of noise and vibration impacts was prepared in conformance with appropriate standards, utilizing procedures and methodologies in the City of Cypress Noise Element and Municipal Code and FTA criteria.

4.6.4.1 Characteristics of Sound

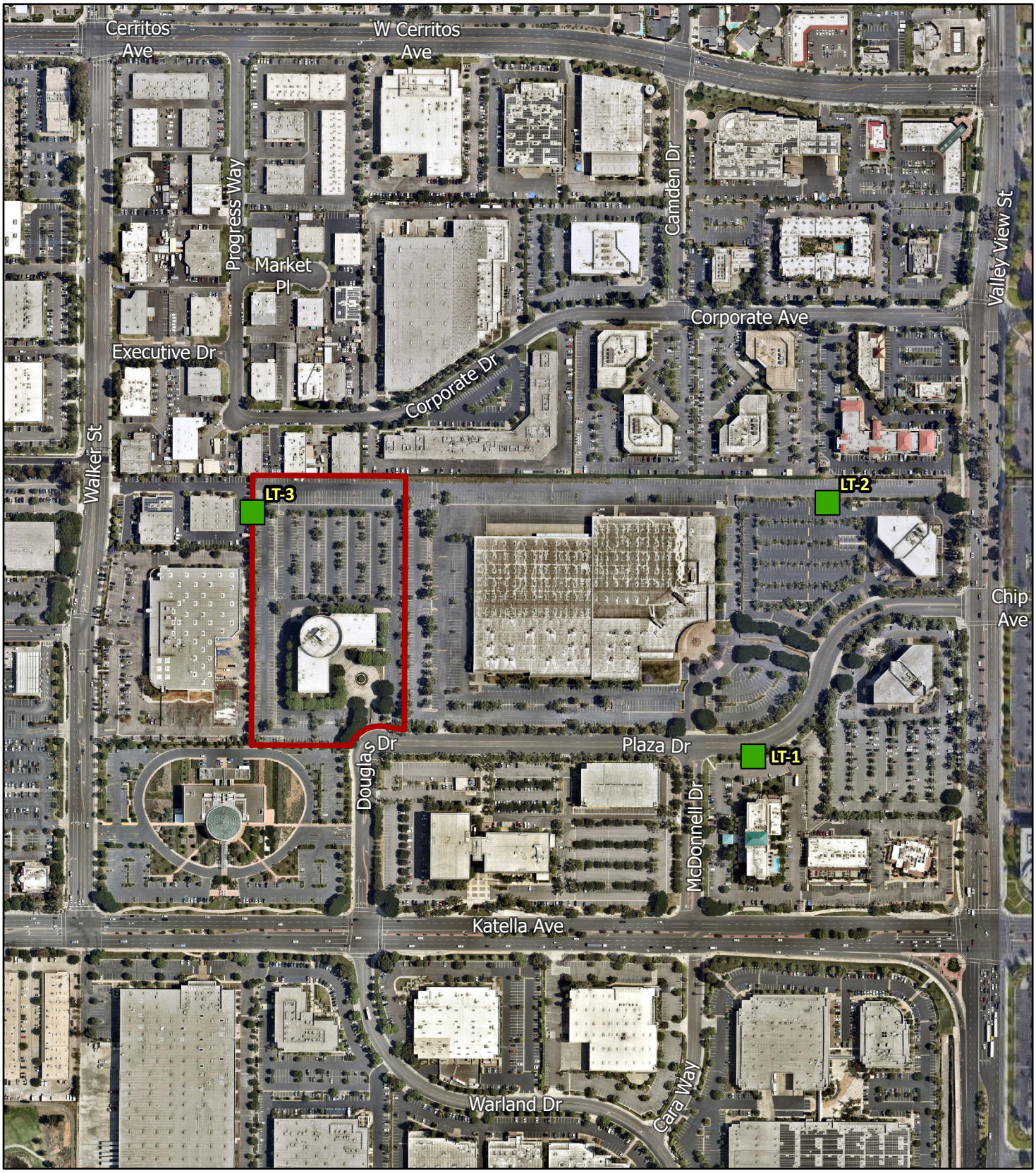
Noise is usually defined as “unwanted sound.” Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm, or when it has adverse effects on health.

To the human ear, sound has two important characteristics: pitch and loudness. Pitch is generally an annoyance, while loudness can affect the ability to hear. Pitch is the number of complete vibrations, or cycles per second, of a wave resulting in the tone’s range from high to low.

Table 4.6.5: Existing Noise Level Measurements

Location	Description	Daytime Noise Levels[1] (dBA L_{eq})	Evening Noise Levels[2] (dBA L_{eq})	Nighttime Noise Levels[3] (dBA L_{eq})	Daily Noise Level (dBA CNEL)
LT-1	Approximately 185 ft east of the Plaza Drive and McDonnell Drive intersection.	54.3-68.0	49.7-61.6	46.2-59.0	62.3
LT-2	Approximately 460 ft west of the Valley View Street centerline and approximately 160 ft south of the existing hotel at 5990 Corporate Avenue.	53.8-60.3	50.5-55.7	47.3-54.6	58.8
LT-3	On the western property line of the project site, 455 ft east of the Walker Street centerline and 100 ft south of the northern property line.	48.8-55.8	46.9-55.0	41.8-48.6	54.3

Source: LSA (2023).
Note: Noise measurements were conducted from October 10 to October 11, 2023, starting at 1:00 p.m.
[1] Daytime Noise Levels = noise levels during the hours of 7:00 a.m. to 7:00 p.m.
[2] Evening Noise Levels = noise levels during the hours from 7:00 p.m. to 10:00 p.m.
[3] Nighttime Noise Levels = noise levels during the hours of 10:00 p.m. to 7:00 a.m.
CNEL = Community Noise Equivalent Level
dBA = A-weighted decibel
ft = foot/feet
L_{eq} = the average noise level during a specific hour
LT = long-term measurement



LSA

Project Site

Long-term Noise Monitoring Location

FIGURE 4.6-1

N

0 200 400

FEET

SOURCE: Nearmap (June 17, 2023)

J:\CCP2201.04\GIS\Pro\Cypress 5665 Plaza Drive Project\Cypress 5665 Plaza Drive Project.aprx (5/18/2024)

5665 Plaza Drive Project Draft Environmental Impact Report

Noise Monitoring Locations

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Loudness is the strength of a sound that describes a noisy or quiet environment and is measured by the amplitude of the sound wave. Loudness is determined by the intensity of the sound waves combined with the reception characteristics of the human ear. Sound intensity is the average rate of sound energy transmitted through a unit area perpendicular to the direction in which the sound waves are traveling. This characteristic of sound can be precisely measured with instruments. In analyzing the potential noise impacts of a proposed project, the existing noise environment in the vicinity of the project site is identified and the potential noise effects of the project are evaluated in terms of sound intensity and the effect on adjacent sensitive land uses.

4.6.4.2 Measurement of Sound

Sound intensity is measured through the A-weighted decibel (dBA) scale to correct for the relative frequency response of the human ear. That is, an A-weighted noise level de-emphasizes low and very high frequencies of sound similar to the human ear's de-emphasis of these frequencies. Decibels (dB), unlike the linear scale (e.g., inches or pounds), is a scale based on powers of 10.

Each interval of 10 dB indicates a sound energy 10 times greater than before. For example, 10 dB is 10 times more intense than 0 dB, 20 dB is 100 times more intense than 0 dB, and 30 dB is 1,000 times more intense than 0 dB. Thirty (30 dB) dB represents 1,000 times as much acoustic energy as 0 dB. The decibel scale increases as the square of the change, representing the sound pressure energy. A sound as soft as human breathing is about 10 times greater than 0 dB. The decibel system of measuring sound gives a rough connection between the physical intensity of sound and its perceived loudness to the human ear. A 10 dB increase in sound level is perceived by the human ear as a doubling of the loudness of the sound. Ambient sounds generally range from 30 dB (very quiet) to 100 dB (very loud).

Sound levels are generated from a source, and their decibel level decreases as the distance from that source increases. Sound dissipates exponentially with distance from the noise source. For a single point source, sound levels decrease approximately 6 dB for each doubling of distance from the source. This drop-off rate is applicable to noise generated by stationary equipment. If noise is produced by a line source (which approximates the effect of several point sources), such as highway traffic or railroad operations, the sound decreases 3 dB for each doubling of distance in a hard site environment. Line source sound levels decrease 4.5 dB for each doubling of distance in a relatively flat environment with absorptive vegetation.

There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also account for the annoying effects of sound. The L_{eq} is the total sound energy of time-varying noise over a sample period. However, the predominant rating scales for communities in the State of California are the L_{eq} and CNEL or the L_{dn} based on A-weighted decibels. CNEL is the time-weighted average noise over a 24-hour period, with a 5 dBA weighting factor applied to the hourly L_{eq} for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and a 10 dBA weighting factor applied to noises occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). L_{dn} is similar to the CNEL scale but without the adjustment for events occurring during the relaxation. CNEL and L_{dn} are within 1 dBA of each other and are normally interchangeable.

Other noise rating scales used when assessing the annoyance factor of noise include the maximum noise level (L_{max}), which is the highest exponential time-averaged sound level that occurs during a stated time period. Short-term noise impacts are specified in terms of maximum levels denoted by L_{max}. L_{max} reflects peak operating conditions and addresses the annoying aspects of intermittent noise. For enforcement purposes, it is often used with another noise scale (or noise standards in terms of percentile noise levels) in noise ordinances. For example, the L_{10} noise level represents the noise level exceeded 10 percent of the time during a stated period. The L_{50} noise level represents the median noise level. Half the time the noise level exceeds this level, and half the time it is less than this level. The L_{90} noise level represents the noise level exceeded 90 percent of the time and is considered the background noise level during a monitoring period.

4.6.4.3 Vibration

According to the USDOT FTA Manual, vibration is the periodic oscillation of a medium or object. The rumbling sound caused by the vibration of room surfaces is called structure-borne noise. Sources of ground-borne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or anthropogenic causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, ground-borne vibrations may be described by amplitude and frequency. Vibration is often described in units of velocity (inches per second) and discussed in decibel units in order to compress the range of numbers required to describe vibration. Vibration impacts are generally associated with activities such as train operations, construction, and heavy truck movements.

The background vibration velocity level in residential areas is generally 50 vibration velocity decibels (VdB). Ground-borne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground-borne vibration is rarely perceptible. The relevant range of vibration for the purposes of this analysis is from approximately 50 VdB, the typical background vibration velocity level, to 100 VdB, the general threshold where minor damage can occur in fragile buildings.

4.6.5 Thresholds of Significance

A project would normally have a significant effect on the environment related to noise if it would substantially increase the ambient noise levels for adjoining areas or conflict with the adopted environmental plans and the goals of the community in which the project is located. The following noise level increases were used to determine whether the project would result in a significant noise impact:

For off-site transportation-related impacts:

- Where the existing ambient noise level is less than 65 dBA and a project-related permanent increase in ambient noise levels of 3 dBA CNEL or greater occurs.
- Where the existing ambient noise level is greater than 65 dBA and a project-related permanent increase in ambient noise levels of 1 dBA CNEL or greater occurs.

For non-transportation-related stationary source impacts, including operations:

- If current noise levels experienced at the surrounding noise-sensitive uses are less than the hourly daytime noise level standards, then an exceedance of the standards listed in **Table 4.6.2** would constitute a potentially significant impact.
- If current noise levels experienced at the surrounding noise-sensitive uses are greater than the hourly daytime noise level standard listed in **Table 4.6.2**, then a perceptible increase of 3 dBA or more would constitute a potentially significant impact.

For construction-related impacts:

- Compliance with the City's Municipal Code and exceedance of the FTA standards listed above and in **Table 4.6.4**.

The thresholds for noise impacts used in this analysis are consistent with Appendix G of the State CEQA Guidelines and the City's Initial Study/Environmental Checklist. The proposed project may be deemed to have a significant impact with respect to noise if it would:

Threshold NOI-1: Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Threshold NOI-2: Generation of excessive groundborne vibration or groundborne noise levels?

Threshold NOI-3: For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Section 4.13, Noise, of the Initial Study (**Appendix B**) prepared for the proposed project concluded the proposed project would have less than significant impacts to ambient noise levels in the vicinity of the project site (Threshold NOI-1) and noise levels related to the proximity of private airstrips and airports (Threshold NOI-3). The proposed project would result in less than significant impact with mitigation incorporated for impacts related to the generation of excessive ground-borne vibration or ground-borne noise levels (Threshold NOI- 2).

4.6.6 Project Impacts

Threshold NOI-1: **Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

Impact NOI-1: Less Than Significant Impact.

Construction Noise Impacts. Short-term noise impacts would be associated with demolition of the existing office building, excavation, grading, and construction of the proposed structure. Construction-related short-term noise levels would be higher than existing ambient noise levels in the vicinity of the project site at the present time but would no longer occur once construction of the proposed project is completed.

Two types of short-term noise impacts could occur during construction of the proposed project. First, construction crew commutes and the transport of construction equipment and materials to the project site would incrementally increase noise levels on access roads leading to the site. Although there would be a relatively high single-event noise exposure potential causing intermittent noise nuisance, the effect on longer-term (hourly or daily) ambient noise levels would be small when compared to existing average daily traffic (ADT) volumes of 800 vehicles on Plaza Drive, 39,950 vehicles on Katella Avenue, and 42,050 vehicles on Valley View Street (Urban Crossroads 2023).[77] Because construction-related vehicle trips would not approach the daily traffic volumes on these roadways, traffic noise would not increase by 3 dBA. A noise level increase of less than 3 dBA would not be perceptible to the human ear in an outdoor environment. It should be noted that the closest noise-sensitive use along Plaza Drive is an existing hotel located 130 feet from the roadway.

Therefore, short-term, construction-related impacts associated with worker commute and equipment transport to the project site would be less than significant.

In addition to the reference maximum noise level, the usage factor provided in **Table 4.6.6** is utilized to calculate the hourly noise level impact for each piece of equipment based on the following equation:

$$L_{eq}(equip) = E.L. + 10\log(U.F.) - 20\log\left(\frac{D}{50}\right)$$

where: $L_{eq}(equip)$ = L_{eq} at a receiver resulting from the operation of a single piece of equipment over a specified time period

E.L. = noise emission level of the particular piece of equipment at a reference distance of 50 feet

U.F. = usage factor that accounts for the fraction of time that the equipment is in use over the specified period of time

D = distance from the receiver to the piece of equipment

[77] Urban Crossroads. 2023. *Goodman Commerce Center Traffic Analysis*. December 15, 2023.

Table 4.6.6: Typical Maximum Construction Equipment Noise Levels (L_{max})

Type of Equipment	Acoustical Usage Factor	Suggested Maximum Sound Levels for Analysis (dBA L_{max} at 50 ft)
Air Compressor	40	80
Backhoe	40	80
Cement Mixer	50	80
Concrete/Industrial Saw	20	90
Crane	16	85
Excavator	40	85
Forklift	40	85
Generator	50	82
Grader	40	85
Loader	40	80
Pile Driver	20	101
Paver	50	85
Roller	20	85
Rubber Tire Dozer	40	85
Scraper	40	85
Tractor	40	84
Truck	40	84
Welder	40	73

Source: Federal Highway Administration. *Highway Construction Noise Handbook* (FHWA 2006).
dBA = A-weighted decibel(s)
ft = foot/feet
L_{max} = maximum instantaneous noise level

Each piece of construction equipment operates as an individual point source. Utilizing the following equation, a composite noise level can be calculated when multiple sources of noise operate simultaneously:

$$Leq\ (composite) = 10 * \log_{10}\left(\sum_{1}^{n} 10^{\frac{Ln}{10}}\right)$$

Once composite noise levels are calculated, reference noise levels can then be adjusted for distance using the following equation:

$$Leq\ (at\ distance\ X) = Leq\ (at\ 50\ feet) - 20 * \log_{10}\left(\frac{X}{50}\right) Leq\ (at\ distance\ X)$$
$$= Leq\ (at\ 50\ feet) - 20 * \log_{10}\left(\frac{X}{50}\right)$$

In general, this equation shows that doubling the distance would decrease noise levels by 6 dBA, while halving the distance would increase noise levels by 6 dBA.

Using the equations from the methodology above, the reference information in **Table 4.6.6**, and the construction equipment list provided, the composite noise level of each construction phase was calculated. The project construction composite noise levels at a distance of 50 feet would range

from 74 dBA L_{eq} to 88 dBA L_{eq}, with the highest noise levels occurring during the site preparation and grading phases.

Based on the information in **Table 4.6.6**, the noise level generated by the construction phases were calculated. The combination of the equipment during the site preparation and grading phases, considering the usage factor of each piece of equipment, would result in a combined noise level of 59 dBA L_{eq} at a distance of 1,300 feet, which represents the distance from the center of construction activity at the project site to the nearest noise-sensitive use (Courtyard by Marriott) to the southeast. This noise level is less than the average daytime noise level measured to be approximately 61 dBA L_{eq} as described in **Table 4.6.5.** The combined construction and ambient noise level would create an increase of less than 3 dBA, the threshold at which the increase becomes perceptible in an outdoor environment. These predicted noise levels would only occur when all construction equipment is operating simultaneously; therefore, the noise levels are assumed to be rather conservative in nature. While construction-related short-term noise levels have the potential to be higher than existing ambient noise levels in the vicinity of the project site under existing conditions, the noise impacts would no longer occur once project construction is completed. During deep dynamic compaction activities, the major source of noise would be the crane utilized to drop the weight. Construction noise levels would be similar to those during building construction as that construction phase would also include the operation of a crane.

Compliance with the allowed construction hours in the City's Noise Ordinance would ensure that construction noise does not disturb residents during typical sleeping hours or during hours when ambient noise levels are likely to be lower (i.e., at night). In addition, the proposed project would implement several best practices for reducing construction noise, including, but not limited to, maximizing the distance between noise sources and sensitive receptors during construction activities, equipping construction equipment with properly operating and maintained noise mufflers, and establishing a noise disturbance coordinator for the proposed project. These best practices are included in **Regulatory Compliance Measure NOI-1**, provided below. Although construction noise would be higher than the ambient noise in the vicinity of the project site, it would cease to occur once project construction is completed. Additionally, with the incorporation of **Regulatory Compliance Measure NOI-1**, all feasible and reasonable measures to reduce construction noise would be implemented, and a less than significant impact would occur.

Long-Term Off-Site Traffic Noise Impacts. The Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used to evaluate traffic-related noise conditions in the vicinity of the project site. This model requires various parameters, including traffic volumes, vehicle mix, vehicle speed, and roadway geometry to compute typical equivalent noise levels during daytime, evening, and nighttime hours. The resultant noise levels are weighted and summed over 24-hour periods to determine the Community Noise Equivalent Level (CNEL) values. The existing and existing plus project traffic volumes in the vicinity of the project site were obtained from the Traffic Analysis prepared for the proposed project (Urban Crossroads 2023). **Table 4.6.7** lists the existing and existing plus project traffic noise levels adjacent to roadway segments in the project site vicinity. These noise levels represent worst-case scenarios, which assume that no shielding is provided between the traffic and the location where the noise contours are drawn.

Table 4.6.7: Traffic Noise Levels Without and With Proposed Project

Roadway Segment	Existing Without Project		Existing With Project			Opening Year Without Project		Opening Year With Project		
	ADT	CNEL (dBA) 50 feet from Centerline of Nearest Lane	ADT	CNEL (dBA) 50 feet from Centerline of Nearest Lane	Increase from Existing Conditions	ADT	CNEL (dBA) 50 feet from Centerline of Nearest Lane	ADT	CNEL (dBA) 50 feet from Centerline of Nearest Lane	Increase from Near-Term Conditions
Katella Avenue west of Douglas Drive	42,950	70.2	43,200	70.2	0.0	47,150	70.6	47,350	70.6	0.0
Katella Avenue east of Douglas Drive	39,950	69.9	40,050	69.9	0.0	43,750	70.3	43,850	70.3	0.0
Plaza Drive between Douglas Drive and McDonnell Drive	1,350	50.1	1,500	50.6	0.5	1,650	51.0	1,800	51.4	0.4
Plaza Drive between McDonnell Drive and Valley View Street	800	47.9	900	48.4	0.5	1,300	50.0	1,400	50.3	0.3
Douglas Drive Between Katella Avenue and Plaza Drive	1,000	48.8	1,450	50.5	1.7	1,350	50.1	1,600	50.9	0.8
McDonnell Drive Between Katella Avenue and Plaza Drive	350	44.2	350	44.2	0.0	350	44.2	350	44.2	0.0
Valley View Street north of Plaza Drive	42,050	70.1	42,200	70.1	0.0	44,800	70.4	44,950	70.4	0.0

Source: Compiled by LSA (December 2022).
Note: Traffic noise within 50 feet of the roadway centerline should be evaluated with site-specific information.
Shaded cells indicate roadway segments adjacent to the project site.
ADT = average daily traffic
CNEL= Community Noise Equivalent Level
dBA = A-weighted decibels

The results indicate that the increase in noise associated with project-related traffic would be very small, ranging from 0.0 to 1.7 dBA along the analyzed road segments. With those increases, as compared to existing ambient conditions, no significant noise impacts would result based on the applicable thresholds ([1]a 3.0 increase in dBA when the ambient is 65 dBA or less, or [2] a 1.0 increase in dBA when the ambient is 65 dBA or greater). No mitigation is required.

Long-Term Off-Site Stationary Noise Impacts. Implementation of the proposed project would generate various on-site stationary noise sources, including heating, ventilation, and air conditioning (HVAC) and dock operations. The Cypress Municipal Code limits non-construction noise experienced at surrounding noise-sensitive uses to 60 dBA or less per the hourly daytime noise level standards for Noise Zone 2. The closest sensitive use for the noise analysis is the Courtyard by Marriott Hotel located approximately 970 feet southeast of the project site.

Of the on-site stationary noise sources during operation of the project, noise generated by loading dock activities would generate the highest maximum noise levels. To provide a conservative analysis, it is assumed that operations would occur equally during all hours of the day and half of the project's 25 loading docks would be active at all times.

The project would have various rooftop mechanical equipment, including HVAC units, on the proposed building. To be conservative, it is assumed the project could have four (4) rooftop HVAC units that would operate 24 hours per day and would generate sound power levels (SPL) of up to 76 dBA SPL or 63 dBA L_{eq} at 5 feet, based on manufacturer data (Allied Commercial 2019).[78] Noise levels generated by cold storage fan units would be similar to noise readings from previously gathered reference noise level measurements, which generate a noise level of 57.5 dBA L_{eq} at 60 feet based on measurements taken by LSA.[79]

Noise levels generated by delivery trucks would be similar to noise readings from truck loading and unloading activities, which generate a noise level of 75 dBA L_{eq} at 20 feet based on measurements taken by LSA. Delivery trucks would arrive on site and maneuver their trailers so that trailers would be parked within the loading docks. During this process, noise levels are associated with the truck engine noise, air brakes, and back-up alarms while the truck is backing into the dock. These noise levels would occur for a shorter period of time (less than 5 minutes). After a truck enters the loading dock, the doors would be closed, and the remainder of the truck loading activities would be enclosed and therefore much less perceptible. To present a conservative assessment, it is assumed that unloading activities could occur at half of the 25 docks simultaneously for a period of more than 30 minutes in a given hour. Additionally, at the remaining half of the loading docks, it is conservatively assumed that refrigeration units attached to the trailers would be in operation while waiting to be unloaded. Based on reference measurements gathered by LSA, each unit would have a reference noise level of 79.4 dBA at 15 feet.

78 Allied Commercial. 2019. KHB – K-Series Rooftop Units Standard and High Efficiency – 50 Hz Product Specifications. April.

79 LSA. 2016. *Operational Noise Impact Analysis for Richmond Wholesale Meat Distribution Center.*

To determine the future noise impacts from project operations to the noise-sensitive uses, a 3-D noise model, SoundPLAN, was used to incorporate the site topography as well as the shielding from the proposed building on site. A graphic representation of the potential operational noise impacts is presented in **Appendix G** of this Draft EIR. The results show the 60 dBA L_{eq} daytime noise contour from operations and the 55 dBA L_{eq} nighttime noise contour from operations would not approach the closest noise-sensitive uses. The estimated noise level at the closest noise-sensitive uses would be less than 34 dBA L_{eq}. Additionally, the proposed project would not substantially increase noise levels over existing conditions. Therefore, this impact would be less than significant. No mitigation is required.

Threshold NOI-2: Would the project result in generation of excessive ground-borne vibration or ground-borne noise levels?

Impact NOI-2: Less Than Significant with Mitigation Incorporated. Vibration refers to ground-borne noise and perceptible motion. Ground-borne vibration is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors. Vibration energy propagates from a source, through intervening soil and rock layers, to the foundations of nearby buildings. The vibration then propagates from the foundation throughout the remainder of the structure.

Typical sources of ground-borne vibration are construction activities (e.g., pavement breaking and operating heavy-duty earthmoving equipment), rail activity, and occasional traffic on rough roads. In general, ground-borne vibration from standard construction practices is only a potential issue when within 25 feet of vibration-sensitive uses. Ground-borne vibration levels from construction activities very rarely reach levels that can damage structures; however, these levels are perceptible near the active construction site. With the exception of older buildings built prior to the 1950s or buildings of historic significance, potential structural damage from heavy construction activities rarely occurs. When roadways are smooth, vibration from traffic (even heavy trucks) is rarely perceptible.

The roadways surrounding the project site, including Plaza Drive, McDonnell Drive, and the existing driveways, are paved, smooth, and unlikely to cause significant ground-borne vibration. In addition, the rubber tires and suspension systems of buses and other on-road vehicles make it unusual for on-road vehicles to cause ground-borne noise or vibration problems. It is, therefore, assumed that no such vehicular vibration impacts would occur and, therefore, no vibration impact analysis of on-road vehicles is necessary.

Construction Vibration Impacts. Construction of the proposed project could result in the generation of ground-borne vibration. This construction vibration impact analysis discusses the potential for building damages using vibration levels in PPV (in/sec) because vibration level in PPV is best used to characterize potential for damage. The 2018 FTA Manual guidelines indicate that a vibration level up to 0.5 in/sec in PPV is considered safe for buildings consisting of reinforced concrete, steel, or timber (no plaster), and would not result in any construction vibration damage. For a non-engineered timber and masonry building, the construction vibration damage criterion is 0.2 in/sec in PPV. Based on information provided by the Project Applicant, the surrounding structures are made of tilt-up concrete; therefore, the vibration analysis will utilize a criterion of 0.5 in/sec PPV.

Table 4.6.8 shows the PPV values at 25 feet from a construction vibration source. As shown in this table, bulldozers and other heavy-tracked construction equipment (except for pile drivers and vibratory rollers) generate approximately 0.089 in/sec PPV of ground-borne vibration when measured at 25 feet, based on the 2018 FTA Manual. In addition to standard vibration reference information, **Table 4.6.8** also includes reference vibration data previously gathered during deep dynamic compaction (DDC) operations.

Table 4.6.8: Vibration Source Amplitudes for Construction Equipment

Equipment	Reference PPV (in/sec) at 25 ft
Deep Dynamic Compaction (10 ton, 60 ft Drop)	0.970[1]
Pile Driver (Impact), Typical	0.644
Pile Driver (Sonic), Typical	0.170
Vibratory Roller	0.210
Hoe Ram	0.089
Large Bulldozer	0.089
Caisson Drilling	0.089
Loaded Trucks	0.076
Jackhammer	0.035
Small Bulldozer	0.003

Sources: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018), Measured DDC data from G3SoilWorks Inc.
[1] PPV vibration data for deep dynamic compaction activities is at a reference distance of 50 ft.
DDC = deep dynamic compaction
ft = foot/feet
FTA = Federal Transit Administration
in/sec = inches per second
PPV = peak particle velocity

In addition to DDC operations used during foundation preparation, construction activities for the proposed project are expected to include the use of bulldozers and loaded trucks. The greatest levels of vibration are anticipated to occur during the foundation preparation phase. All other phases are expected to result in lower vibration levels.

The distance to the nearest buildings for the vibration impact analysis is measured between the nearest off-site buildings and the project site boundary (assuming the construction equipment would be used at or near the project site boundary) because vibration impacts occur normally within buildings. The formula for vibration transmission is provided below.

$$PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$$

The distance to the nearest buildings for the vibration impact analysis during DDC is measured between the nearest off-site buildings and the edge of the proposed building at 50 feet, indicating where DDC is needed. The formula for vibration transmission was calculated based on data provided by G3SoilWorks Inc. and is provided in **Appendix F** of this Draft EIR.

For typical construction activity, the equipment with the highest vibration generation potential is the large bulldozer, which would generate 0.089 PPV in/sec at 25 feet. The closest surrounding buildings to the project site include existing industrial buildings located approximately 5 feet north of the edge of the project site. The industrial building would experience vibration levels of up to

0.995 in/sec PPV. This vibration level at the nearest building from construction equipment would potentially exceed the FTA threshold of 0.5 in/sec PPV for building damage. At a distance of approximately 8 feet from typical construction activities, vibration levels would approach 0.492 in/sec PPV and would be below the FTA criteria of 0.5 in/sec PPV. While construction could result in vibration damage, impacts would be reduced to less than significant, and the potential for building damage would be eliminated with the incorporation of **Mitigation Measure NOI-1** as detailed below.

For the DDC construction activities, the proposed drops could occur as close as 50 feet from the nearest structures. The nearest off-site industrial building to the DDC construction activities would experience vibration levels of up to 1.02 in/sec PPV, which would potentially exceed the FTA threshold of 0.5 in/sec PPV for building damage. At a distance of approximately 78 feet from DDC construction activities, vibration levels would be 0.49 in/sec PPV and would be below the FTA criteria of 0.5 in/sec PPV. While construction could result in vibration damage, impacts would be reduced to less than significant, and the potential for building damage would be eliminated with the incorporation of **Mitigation Measure NOI-1.**

Threshold NOI-3: **For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?**

Impact NOI-3: Less than Significant Impact. The closest airport to the project site is Joint Forces Training Base (JFTB) Los Alamitos, which is located approximately 0.4 mile to the southwest. The noise contour boundaries of JFTB show that the project site is located outside of Noise Impact Zone 2 (60 dB CNEL or greater), therefore, this impact would be less than significant. No mitigation is required.

4.6.7 Level of Significance Prior to Mitigation

Prior to the implementation of mitigation measures, the project could potentially result in the generation of ground-borne vibration and ground-borne noise during construction activities. The project would result in less than significant impacts related to temporary construction and operational noise impacts, and to the exposure of people to excessive noise levels within the vicinity of an airport or private airstrip.

4.6.8 Regulatory Compliance Measures and Mitigation Measures

4.6.8.1 Regulatory Compliance Measures

The following regulatory compliance measure is applicable to the proposed project and is considered in the analysis of potential impacts related to noise. In addition to compliance with the construction hours specified in the City's Municipal Code, the following standard condition would reduce construction noise to the extent feasible and reasonable:

Regulatory Compliance Measure NOI-1 **Construction Noise and Vibration**. Prior to issuance of grading permits, the City of Cypress (City) Director of Community Development Department, or designee, shall

verify that grading and construction plans include the following requirements:

- Ensure that the greatest distance between noise sources and sensitive receptors during construction activities has been achieved.
- Construction equipment, fixed or mobile, shall be equipped with properly operating and maintained noise mufflers consistent with manufacturers' standards.
- Construction staging areas shall be located away from off-site sensitive uses during the later phases of project development.
- The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from noise-sensitive receptors nearest the project site whenever feasible.
- The construction contractor shall use on-site electrical sources to power equipment rather than diesel generators where feasible.
- A sign, legible at a distance of 50 feet, shall also be posted at the construction site perimeter. All notices and the signs shall indicate the dates and duration of ground improvement activities, as well as provide a telephone number for the "noise disturbance coordinator."
- A "noise disturbance coordinator" shall be established. The disturbance coordinator shall be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall be required to implement reasonable measures to reduce noise levels. All signs posted at the construction site shall list the telephone number for the disturbance coordinator.

4.6.8.2 Mitigation Measures

The following mitigation measure is applicable to the proposed project.

Mitigation Measure NOI-1

Construction Vibration Monitoring Plan. Due to the close proximity to surrounding structures, the City of Cypress (City) Director of Community Development, or designee, shall verify prior to issuance of demolition or grading permits, that the approved plans require that the construction contractor implement the following mitigation measures during project construction activities in the event that the use of heavy equipment is necessary within 25 feet (ft) of surrounding structures or when deep dynamic compaction (DDC) construction activity takes places within 80 ft of surrounding structures:

- Notification to nearby businesses detailing the schedule and duration of DDC activities.

- Structures that are located within 25 ft of heavy construction activities and within 80 ft of DDC construction activity that have the potential to be affected by ground-borne vibration shall be identified. This task shall be conducted by a qualified structural engineer as approved by the City's Director of Community Development, or designee.

- The Applicant's construction contractor shall develop a vibration monitoring and construction contingency plan for approval by the City's Director of Community Development, or designee, to identify appropriate locations in the vicinity of nearby structures where monitoring would be conducted; set up a vibration monitoring schedule; define structure-specific maximum vibration limits based on building inspections; contain provisions to conduct photo, elevation, and crack surveys to document before and after construction conditions at those structures. The plan shall identify construction contingencies that would be implemented if vibration levels approach the established vibration limits at a particular location. Potential contingencies may include one or more of the following:

    - Lowering the height of the compaction weight;

    - Using a lighter compaction weight; or

    - Any other alternate method that is safe and appropriate, as determined by the project

geotechnical consultant, in consultation with the City's Director of Community Development (such as utilizing geopier stabilization instead of DDC).[80]

- At a minimum, vibration during initial site preparation activities at the locations described above shall be monitored. The monitoring results may indicate the need for more or less intensive measurements.

- When vibration levels approach the applicable limits established in the vibration monitoring and construction contingency plan, construction shall be suspended, and the appropriate mitigation measures identified in the construction contingency plan shall be implemented to reduce vibration levels below thresholds.

4.6.9 Level of Significance after Mitigation

With the implementation of mitigation measures, all impacts would be reduced to a less than significant level.

4.6.10 Cumulative Impacts

Less Than Significant Impact. As defined in the State CEQA Guidelines, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and reasonably foreseeable probable future projects. A cumulative noise or vibration impact would occur if multiple sources of noise and vibration combine to create impacts in close proximity to a sensitive receptor. Therefore, the cumulative area for noise and vibration impacts is the project site and any sensitive receptors in the immediately surrounding area.

Construction Noise. Construction activities associated with the proposed project and other construction projects in the area may overlap, resulting in construction noise in the area. However, construction noise impacts primarily affect the areas immediately adjacent to each construction site. Construction noise for the proposed project was determined to be less than significant. Cumulative development in the vicinity of the project site could result in elevated construction noise levels at sensitive receptors in the area surrounding the project site. However, each project would be required to comply with the applicable city's Municipal Code limitations on construction. Therefore, cumulative construction noise impacts would be less than significant.

Operational Traffic Source Noise Impacts. According to the USEPA, cumulative noise impacts represent the combined and incremental effects of human activities that accumulate over time. While the incremental impacts may be insignificant by themselves, the combined effect may result

[80] Utilizing a geopier stabilization system method is estimated to result in vibration levels of 0.22 at approximately 15 feet, which would ensure that vibration from construction within 10 feet remains lower than the threshold of 0.5 in/sec PPV for building damage.

in a significant impact. Conversely, although there may be a significant noise increase due to the proposed project in combination with other related projects (combined effects), it must also be demonstrated that the project has an incremental effect. In other words, a significant portion of the noise increase must be due to the proposed project.

As stated in Section 4.7, Transportation, the results of the Future Year (2025) Condition (Opening Year With Project) peak-hour level of service (LOS) analysis for the study area intersections show that all study area intersections are forecasted to operate at satisfactory LOS during both peak hours. As previously shown in **Table 4.6.8** above, project-related traffic for the Opening Year With Project would result in noise level increases between 0.0 to 0.8 dBA CNEL along roadway segments in the vicinity of the project site. These levels are below the significance criteria for off-site traffic noise. Therefore, none of the roadway segments in the vicinity of the project site would experience a substantial noise level increase greater than the applicable noise thresholds, and the proposed project would not have a cumulatively significant traffic noise impact.

Operational Stationary Source Noise. Long-term stationary noise sources associated with the development at the proposed project, combined with other cumulative projects, could cause local noise level increases. Noise levels associated with the proposed project and related projects together could result in higher noise levels than considered separately. As previously described, on-site noise sources associated with the proposed project would not exceed any applicable noise standards. Additionally, each of the related projects would be required to comply with the City's noise level standards and include mitigation measures if standards are exceeded. Therefore, cumulative noise impacts from stationary noise sources would be less than significant.

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4.7 TRANSPORTATION

This section analyzes the potential transportation impacts associated with the 5655 Plaza Drive Project (proposed project). The analysis contained in this section is based on the *Traffic Impact Analysis* prepared by Urban Crossroads, dated November 21, 2023, the Traffic Memorandum dated February 20, 2024, and the *Vehicle Miles Traveled (VMT) Analysis*, prepared by LSA Associates, Inc., dated December 15, 2023. Both documents are provided in **Appendix E** to this Draft EIR.

4.7.1 Scoping Process

The City received three comment letters during the public review period for the NOP. For copies of the NOP comment letters, refer to **Appendix A** of this Draft EIR. Two comment letters included comments related to noise.

The letter from the City of Los Alamitos received on June 5, 2024, requests that the Draft EIR outline the existing truck routes, the project's impact along existing truck routes, and any impacts related to the modification of truck routes. Additionally, the letter suggested the Draft EIR provide a traffic and/or access analysis to evaluate daily truck trips and their distribution and influence on Los Alamitos roadways. Specifically, on I-605 and I-405.

The Letter from Warland Investments Company and Affiliated Entities received on June 5, 2024, suggest that the proposed project has a foreseeable potential use as a logistics center, stating that logistics centers can create more congestion on local streets when compared to typical warehouse projects. Additionally, in a previous letter dated March 7, 2024, which was included as an attachment in the June 5, 2024, letter, Warland states their concerns about the Truck Distribution Map in the Traffic Analysis for the proposed project, highlighting the analysis's failure to account for truck traffic from the entire Goodman Commerce Center (the 5665 Plaza Drive Project and The Goodmand Commerce Center Project), the incorrect assumption that 100 percent of truck traffic will exit via Driveway 1, and the omission of detailed projections for truck routes, especially regarding the impact on nearby residential areas. Additionally, the letter argues that the Traffic Analysis inaccurately estimates daily truck trips by solely evaluating the 5665 Redevelopment, rather than considering the entire Goodman Commerce Center as a logistics hub, leading to a significant underestimation of truck traffic impacts.

4.7.2 Regulatory Setting

The applicable federal, State, regional, and local regulatory framework is discussed below.

4.7.2.1 Federal Regulations

There are no federal regulations or policies pertaining to transportation that are applicable to the proposed project.

4.7.2.2 State Regulations

Senate Bill 743. SB 73 was signed into law by Governor Jerry Brown on September 27, 2013, initiating a change to the State CEQA Guidelines on the methodology for analyzing transportation impacts in CEQA documents. SB 743 directed the California OPR to establish new CEQA guidance to replace analytical approaches focused on automobile vehicle delay at intersections and traffic

congestion along roadway segments using the level of service (LOS) method from CEQA transportation analysis. As of July 1, 2020, lead agencies must use the vehicle miles traveled (VMT) metric instead of LOS to analyze transportation impacts in CEQA documents as the basis for determining significant transportation impacts in the State. VMT measures the vehicle miles travelled that would result from implementation of a project.

State CEQA Guidelines Section 15064.3, Subdivision (b). In January 2018, the State of California OPR submitted a proposal to the California Natural Resources Agency for comprehensive updates to the State CEQA Guidelines. The submittal included proposed updates related to the analysis of greenhouse gas (GHG) emissions, energy, transportation impacts pursuant to SB 743, and wildfires, as well as revisions to State CEQA Guidelines Section 15126.2(a) in response to the California Supreme Court's decision in *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal. 4th 369. On December 28, 2018, the updated State CEQA Guidelines went into effect.

Section 15064.3 of the updated State CEQA Guidelines codifies that project-related transportation impacts are typically best measured by evaluating the project's VMT. Specifically, subdivision (b) focuses on specific criteria related to transportation analysis and is divided into four subdivisions: (1) land use projects, (2) transportation projects, (3), qualitative analysis, and (4) methodology. Subdivision (b)(1) provides guidance on determining the significance of transportation impacts of land use projects using VMT; projects located within 0.5 mile of high-quality transit should be considered to have a less than significant impact. Subdivision (b)(2) addresses VMT associated with transportation projects and states that projects that reduce VMT, such as pedestrian, bicycle, and transit projects, should be presumed to have a less than significant impact. Subdivision (b)(3) acknowledges that Lead Agencies may not be able to quantitatively estimate VMT for every project type; in these cases, a qualitative analysis may be used. Subdivision (b)(4) stipulates that Lead Agencies have the discretion to formulate a methodology that would appropriately analyze a project's VMT.

4.7.2.3 Regional Regulations

Orange County Congestion Management Program. Established in 1991, the Orange County Transportation Authority (OCTA) consolidated seven separate agencies into a single multimodal transportation agency. State law requires that a Congestion Management Program (CMP) be developed, adopted, and updated biennially for every county that includes an urbanized area, and requires that it include every city and the county government within that county. As the Congestion Management Agency for Orange County, OCTA is responsible for implementing the Orange County CMP. OCTA adopted the CMP in 1991 to reduce traffic congestion and to provide a mechanism for coordinating land use and development decisions in Orange County. Compliance with the CMP requirements ensures a city's eligibility to compete for State gas tax funds for local transportation projects.

County of Orange Master Plan of Arterial Highways. The County of Orange Master Plan of Arterial Highways (MPAH) defines the arterial system in the Circulation Element of the Orange County General Plan. This system, which is the planned future roadway system in the County, incorporates several specific arterial roadway classifications. The Circulation Elements of cities within the County

are expected to be consistent with the MPAH in order to be eligible for funding improvements on MPAH roadways.

County of Orange Measure M Growth Management Program. Measure M, approved in 1990 by County voters, authorized the collection of a one-half percent sales tax to fund needed transportation improvements. In order to be eligible to receive funds, cities must satisfy a number of requirements, including adopting a Circulation Element that is consistent with the County's MPAH, adopting a Growth Management Plan, and adopting a seven-year capital improvement program to include transportation projects funded by Measure M.

4.7.2.4 Local Regulations

City of Cypress General Plan. The City of Cypress General Plan[81] is the primary source of long-range planning and policy direction that guides growth and preserves quality of life within the community. The General Plan contains goals, policies, and plans that are intended to guide land use and development decisions. The General Plan, last comprehensively updated in 2001, includes a Land Use Map and the following eight elements, or chapters, which together fulfill the State requirements for a General Plan:

- Land Use Element
- Housing Element
- Circulation Element
- Conservation/Open Space/Recreation Element (satisfies the State's Conservation and Open Space Element requirements)
- Safety Element
- Noise Element
- Air Quality Element (optional element not required by State law)
- Growth Management Element (optional element not required by State law)

City of Cypress General Plan Circulation Element. The Circulation Element[82] is a general guide for the planning, development, and enhancement of the City's public roadways, based on existing and anticipated land uses. Most transportation-related plans and programs are established with the goal of maintaining acceptable operating LOS on the City's transportation system. The City of Cypress has adopted LOS D or better as the desired citywide operating standard for most City streets. However, given the influence of regional traffic on Valley View Street, Lincoln Avenue, and Katella Avenue, which are beyond the control of the City of Cypress, LOS E or better has been adopted as the minimum operating Level of Service for street segments and intersections on these arterials. The Circulation Element goals and policies define the City's vision for a balanced, efficient circulation system which incorporate many modes of travel and which allows for the safe movement of people

81 City of Cypress. 2001a. *City of Cypress General Plan*.
82 City of Cypress. 2001b. *City of Cypress General Plan* Circulation Element.

and goods in and around Cypress. Based on the Circulation Element, the local and regional street network is built out in Cypress. Similarly, the City's bikeway system is generally built out, with the exception of a planned bike lane on Walker Street south of Cerritos Avenue. This proposed bike lane would connect to the existing bike lane on Walker Street north of Cerritos Avenue.

4.7.3 Existing Environmental Setting

4.7.3.1 Existing Circulation System

The project site is generally bounded by light industrial uses to the north and the Goodman Commerce Center Project (approved in April 2023) to the east, and Plaza Drive to the south. Access to the project site is provided by two existing driveways along Plaza Drive; the proposed project would relocate the driveway locations. The new westernmost driveway would be the primary truck access point and path to the truck loading docks on the proposed building's west side, while the eastern driveway would be a shared driveway with the parcel to the east.

Key roadways in the vicinity of the project site include:

- **Plaza Drive** is an east-west two- lane divided roadway located directly south of the project site and is not a classified General Plan roadway. ~~Sidewalks are not provided along Plaza Drive~~ There are no sidewalks along Plaza Drive east of the project site. However, sidewalks are proposed along 5775 and 5885 Plaza Drive on the north side of Plaza Drive**.** No on-street parking is permitted.

- **Douglas Drive** is a north-south two-lane divided roadway located south of the project site and connects into Katella Avenue via a signalized intersection and is not a classified General Plan roadway. Sidewalks are provided on the west side along the roadway. ~~However, sidewalks are proposed along 5775 and 5885 on the north side of Douglas Drive~~ No on-street parking is permitted.

- **Katella Avenue** is an east-west six-lane divided roadway located south of the project site. According to the City of Cypress General Plan Circulation Element (2001), Katella Avenue is designated as a Major Arterial. Katella Avenue is designated on the Orange County CMP as a CMP facility. The posted speed limit is 40 to 45 miles per hour (mph). Sidewalks are provided on both sides of the street. On-street parking is permitted in select locations.

- **Valley View Street** is a north-south six-lane divided roadway located west of the project site. Valley View Street designated as a Major Arterial in the City of Cypress General Plan Circulation Element. Valley View Street is designated in the Orange County CMP as a CMP facility. The posted speed limit is 45 mph. Sidewalks are provided on both sides of the street. On-street parking is not permitted.

- **Walker Street** is a north-south, four-to-five-lane, ~~un~~divided roadway. According to the City of Cypress General Plan Circulation Element (2001), Walker Street is classified as a Secondary Arterial. The average posted speed limit is 40 mph. Sidewalks are provided on both sides of the street. On-street parking is not permitted.

- **Cerritos Avenue** is a four-to-five-lane, divided roadway. According to the City of Cypress General Plan (2001), Cerritos Avenue is a Primary Arterial. The posted speed limit is 45 mph. Sidewalks are provided on both sides of the street, and on-street (Class II) bicycle lanes are provided on both sides between Walker Street and Denni Street. On-street parking is permitted in select locations.

- **Ball Road** is a four-lane, divided roadway and it is classified as a Primary Arterial according to the City of Cypress General Plan (2001). The posted speed limit is 45 mph. On-street (Class II) bicycle lanes and sidewalks are provided on both sides of the street. On-street parking is not permitted.

- **Moody Street** is a north-south, four-lane, divided roadway. According to the City's General Plan Circulation Element (2001), Moody Street is classified as a Primary Arterial. The posted speed limit is 40 mph. On-street bicycle lanes (Class II) and sidewalks are provided on both sides of the street. On-street parking is generally not permitted.

- **Orangewood Avenue** is a four-lane, undivided roadway. According to the City of Cypress General Plan (2001), Orangewood Avenue is a Secondary Arterial. The posted speed limit is 35 to 40 mph. Sidewalks are provided on both sides of the street. On-street parking is not permitted.

Pedestrian Circulation. Sidewalks currently exist on both sides of Katella Avenue, Valley View Street, in the vicinity of the project site. Additionally, there is a 10-foot sidewalk along the west side of Douglas Drive between the proposed project down to Katella Avenue to the south. There are pedestrian crosswalks at all signalized intersections in the vicinity of the project site. These facilities provide for pedestrian circulation between the project site and the surrounding areas.

Bicycle Circulation. Katella Avenue and Valley View Street currently accommodate off-street bike paths; there are no on-street bike lanes provided by Katella Avenue. On-street (Class II) bicycle lanes are provided on both sides of Cerritos Avenue (between Walker Street and Denni Street) and Bloomfield Street. There is a Class I bicycle lane on the south side of Cerritos Avenue between Walker Street and Denni Street. On-street bicycle lanes (Class II) and sidewalks are provided on both sides of Moody Street.

Transit Facilities. Transit facilities would be provided by the OCTA along Katella Avenue and Valley View Street. OCTA Route 50 runs along Katella Avenue and currently has existing bus stops just east of Douglas Drive and west of Valley View Street. Route 50 provides transportation to/from the Cities of Orange and Long Beach via Katella Avenue. OCTA Route 123 runs along Valley View Street with existing bus stops north of Plaza. OCTA Route 123 provides transportation to/from Buena Park and Sunset Beach via Valley View Street. OCTA buses stop approximately every hour (60 minutes) during the morning and evening commute hours (operational between 4:00 AM and 10:00 PM).

4.7.3.2 Existing Traffic Volumes and LOS Analysis

The intersection LOS analysis is based on the traffic volumes observed during the peak hour conditions using traffic count data collected in 2022 when local schools were in session and operating on normal bell schedules. The following peak hours were selected for analysis:

- Weekday AM Peak Hour (peak hour between 7:00 AM and 9:00 AM)
- Weekday PM Peak Hour (peak hour between 4:00 PM and 6:00 PM)

There were no observations made in the field that would indicate atypical traffic conditions on the count dates, such as construction activity or detour routes and near-by schools were in session and operating on normal schedules. The 2022 peak hour volumes have been adjusted to increase turning movements into low occupancy office uses in the surrounding area by 30 percent. The volumes were then increased by an additional two percent for all movements in order to adjust the 2022 traffic counts to 2023. A comparison of the PM peak hour and daily traffic volumes of various roadway segments within the study area indicated that the peak-to-daily relationship is approximately 8.9 percent. As such, the above equation utilizing a factor of 11.3 estimates the ADT volumes on the study area roadway segments assuming a peak-to-daily relationship of approximately 8.9 percent (i.e., 1/0.089 = 11.3) and was assumed to sufficiently estimate ADT volumes for planning-level analyses.

Volumes reported on the exhibits are expressed in passenger car equivalent (PCE) volumes as the intersection operations analysis utilizes PCE volumes. Note that only the intersection turning movement volumes are expressed in PCE and ADTs are presented as actual vehicles as used in other technical studies. PCEs allow the typical "real-world" mix of vehicle types to be represented as a single, standardized unit, such as the passenger car, to be used for the purposes of capacity and level of service analyses.

The intersection operations analysis results summarized on **Table 4.7.1** indicate that all existing study area intersections are currently operating at acceptable LOS during the peak hours.

Table 4.7.1: Existing Intersection Level of Service Summary (2023) Conditions

Intersection		Control	Peak Hour	Existing	
				ICU/Delay	LOS
1	Douglas Drive /Warland Drive and Katella Avenue	Signal (ICU)	AM	0.44	A
			PM	0.52	A
		Signal (Delay)	AM	5.4	A
			PM	8.2	A
2	Douglas Drive /Driveway 2 and Driveway 1/Plaza Drive	AWS (ICU)	AM	N/A	N/A
			PM	N/A	N/A
		AWS (Delay)	AM	7.2	A
			PM	7.7	A
5	Existing Driveway/McDonnell Dive and Plaza Drive	CSS (ICU)	AM	N/A	N/A
			PM	N/A	N/A
		CSS (Delay)	AM	9.2	A
			PM	10.8	B
7	Knott Avenue/Katella Avenue	Signal (ICU)	AM	0.56	A
			PM	0.79	C
8	Western Avenue/Katella Avenue	Signal (Delay)	AM	15.4	B
			PM	35.7	D

Source: *Traffic Impact Analysis* (Urban Crossroads, November 2023).
Note: Delay is reported in seconds.
CSS = cross-street stop
ICU = Intersection Capacity Utilization
LOS = level of service
N/A = not applicable

4.7.3.3 Existing Traffic Signal Warrant Analysis

Traffic signal warrants for existing traffic conditions are based on existing peak hour intersection turning volumes. For existing traffic conditions, there are no study area intersections that currently warrant a traffic signal based on the peak hour traffic volumes.

4.7.3.4 Existing VMT

Regional HBW VMT for Orange County was calculated for the base (2016) and future (2045) scenarios based on OCTAM output files. The socio-economic data and VMT per employee for the region was calculated as a collection of TAZs (all TAZs located in Orange County) rather than a single TAZ. Baseline (2020) HBW VMT for Orange County was developed by interpolating (using linear interpolation) between base (2016) and future (2045) VMT. Orange County baseline (2020) VMT per employee is summarized in **Table 4.7.2.**

Table 4.7.2: Baseline 2020 Orange County VMT per Employee

Description	Orange County[1]
Employment	1,710,147
VMT	4 1,174,971
VMT/Employee	24.~~8~~1

Source: *VMT Assessment* (LSA December 2023).
[1] Obtained from Final Draft Guidelines For Evaluating Vehicle Miles Traveled Under CEQA for the County of Orange, September 17,2020.
OCTAM = Orange County Transportation Analysis Model
VMT = vehicle miles traveled

4.7.4 Methodology

As discussed in Section 4.7.2, Regulatory Setting, recent changes to the State CEQA Guidelines eliminated the requirement for LOS analysis in CEQA documents in favor of the VMT metric. However, the City of Cypress' General Plan Circulation Element includes a detailed LOS analysis of the City's existing operating conditions and sets LOS capacity/operational standards for each class of roadway within the City. Therefore, an analysis of LOS is included in this section in order to achieve consistency with the City's General Plan.

The Traffic Impact Analysis (TIA) (see **Appendix E**) prepared for the proposed project is consistent with the objectives and requirements of the City of Cypress, and the Orange County CMP (County of

Orange 2023),[83] as well as applicable provisions of CEQA, including disclosure of project impacts in both existing and cumulative horizon years.

The scope of work for the TIA, including the project study area, was reviewed and approved by the City's Traffic Engineer prior to the preparation of the TIA. Study area locations were selected in consultation with City staff. The study area analyzed in the project TIA includes the following four intersections (six intersections in Cypress, one intersection in both Cypress and Stanton, and one intersection in Stanton):

1. Douglas Drive/Warland Drive and Katella Avenue (signalized) (Cypress)
2. Douglas Drive/Driveway 2 and Driveway 1/Plaza Drive (unsignalized (Cypress)
3. Existing Driveway/McDonnell Drive and Plaza Drive (unsignalized) (Cypress)
4. Valley View Street and Plaza Drive/Chip Avenue (signalized) (Cypress)

4.7.4.1 Intersection Level of Service Methodologies

In accordance with the requirements of the City of Cypress, and the Orange County CMP, signalized intersection operation is analyzed using the Intersection Capacity Utilization (ICU) methodology. The ICU methodology compares the volume-to-capacity (v/c) ratios of conflicting turn movements at an intersection, sums up these critical conflicting v/c ratios for each intersection approach, and determines the overall ICU. Lane capacities of 1,600 vehicles per hour of green time is assumed for the ICU calculations. The Traffix software is utilized to evaluate the signalized intersections based on the ICU methodology. The resulting ICU is expressed in terms of level of service (LOS), where LOS A represents free-flow operation and LOS F represents over capacity operation.

The relationship between LOS and the ICU value (i.e., v/c ratio) is as follows.

Level of Service	Volume-to-Capacity (ICU Methodology)
A	≤0.60
B	>0.60 and ≤0.70
C	>0.70 and ≤0.80
D	>0.80 and ≤0.90
E	>0.90 and ≤1.00
F	>1.00

Source: 2019 Orange County Congestion Management Program (CMP)
ICU = intersection capacity utilization

In addition to the ICU methodology of calculating signalized intersection LOS, the *Highway Capacity Manual* (HCM), 6th Edition (Transportation Research Board 2017) methodology is used to determine the LOS of the unsignalized intersections. The Synchro (Version 10) is utilized for evaluation of the unsignalized study area intersections based on the HCM 6th Edition methodology. The following tables, **Table 4.7.3** shows the relationship of delay to LOS for unsignalized and **Table 4.74** shows the signalized intersections.

[83] Orange County Transportation Authority (OCTA). 2023. *Orange County Congestion Management Program Report. November.* Website: https://www.octa.net/pdf/2023CMP.pdf?n=202311 (accessed May 24, 2024).

Table 4.7.3: Unsignalized Intersection LOS Thresholds

Description	Level of Service	Intersection Delay (seconds) per Vehicle (HCM Methodology)
		Unsignalized
Little or no delays	A	0 to 10.00
Short traffic delays	B	10.01 to 15.00
Average traffic delays.	C	15.01 to 25.00
Long traffic delays	D	25.01 to 35.00
Very long traffic delays.	E	35.01 to 50.00
Extreme traffic delays with intersection capacity exceeded.	F	>50.0

Source: *Highway Capacity Manual* 6th Edition (Transportation Research Board 2017).

Table 4.7.4: Signalized Intersection LOS Thresholds

Description	Level of Service	Intersection Delay (seconds) per Vehicle (HCM Methodology)
		Unsignalized
Operations with very low delay occurring with favorable progression and/or short cycle length.	A	0 to 10.00
Operations with low delay occurring with good progression and/or short cycle lengths.	B	10.01 to 20.00
Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	C	20.01 to 35.00
Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	D	35.01 to 55.00
Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	E	55.01 to 80.00
Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	F	80.01 and up

Source: *Highway Capacity Manual* 6th Edition (Transportation Research Board 2017).

4.7.4.2 Traffic Signal Warrant Analysis Methodology

The term "signal warrants" refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify or ascertain the potential need for installation of a traffic signal at an otherwise unsignalized intersection. An evaluation of the signal warrant criteria presented in the Caltrans 2014 California Manual on Uniform Traffic Control Devices (CAMUTCD) (revised in 2023) is conducted for the unsignalized study area intersections.

The signal warrant criteria for existing study area intersections are based upon several factors, including volume of vehicular and pedestrian traffic, frequency of accidents, and location of school areas. The CA MUTCD indicates that the installation of a traffic signal should be considered if one or

more of the signal warrants are met. Specifically, this TIA utilizes the Peak Hour Volume-based Warrant 3 as the appropriate representative traffic signal warrant analysis for existing traffic conditions and for all future analysis scenarios for existing unsignalized intersections. Warrant 3 is appropriate to use for this TIA because it provides specialized warrant criteria for intersections with rural characteristics. For the purposes of this study, the speed limit was the basis for determining whether Urban or Rural warrants were used for a given intersection. Rural warrants have been used where posted speed limits on the major roadways with unsignalized intersections that are over 40 miles per hour while urban warrants have been used where posted speeds are 40 miles per hour or below.

It is important to note that a signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this threshold condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate with LOS. An intersection may satisfy a signal warrant condition and operate at or above acceptable LOS or operate below acceptable LOS and not meet a signal warrant.

4.7.4.3 Vehicle Miles Traveled Analysis

On December 28, 2018, the California Office of Administrative Law cleared the revised CEQA Guidelines for use. Among the changes to the State CEQA Guidelines was the removal of vehicle delay and LOS from consideration under CEQA. With the adopted guidelines, transportation impacts are to be evaluated based on a project's effect on VMT.

The City is yet to adopt the SB 743 guidelines; therefore, the VMT analysis has been based upon the methodology and significant threshold criteria identified in the OPR's Technical Advisory, dated December 2018.

The project includes industrial land uses only. The OPR Technical Advisory does not specifically recommend any VMT metric or threshold for industrial uses. However, since the land use is non-residential and could not be classified as retail land use, VMT-per-employee metric was used for purposes of evaluating the project.

Based on the OPR Technical Advisory recommendations, the threshold for determining VMT impacts has been considered as 15 percent below the region's baseline VMT per capita for residential projects, and 15 percent below the region's baseline VMT per employee for non-residential/non-retail projects.

As per the OPR TA, a region should be defined based on where the majority of the project trips are contained. As such, the majority of project trips are estimated to start or end within the region defined for VMT analysis purposes. Typically, it is the county boundary within which a majority of those trips are contained. While the city boundary can also be considered as the region for residential uses, given that the project land use is non-residential and based on the understanding of the local trip patterns, it was determined that the entire Orange County would be the most appropriate region for the project for purposes of VMT analysis. As such, as recommended in the

OPR Guidelines, if the project VMT per employee is greater than 85 percent of the existing countywide VMT per employee, the project constitutes a significant VMT impact.

4.7.5 Thresholds of Significance

The thresholds for transportation impacts used in this analysis are consistent with Appendix G of the State CEQA Guidelines and the City's Initial Study/Environmental Checklist. The proposed project may be deemed to have a significant impact with respect to transportation if it would:

Threshold TRA-1: Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities

Threshold TRA-2: Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)

Threshold TRA-3: Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)

Threshold TRA-4: Result in inadequate emergency access

4.7.6 Project Impacts

Threshold TRA-1: **Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?**

Impact TRA-1: Less Than Significant Impact. In order to assess the impact of the proposed project on the surrounding circulation system, Urban Crossroads calculated the project-related trips using trip rates from the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 11th Edition (2021) High-Cube Cold Storage (Land Use Code 157) **Table 4.7.5**, below, presents the trip generation comparison between the existing and proposed use.

Table 4.7.5: Proposed Project Trip Generation Comparison

Land Use	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Proposed Project Trip Generation							
Passenger Cars	262	15	1	16	4	14	18
Total Truck Trips (PCE)	342	4	9	13	7	7	14
Total Trips (PCE)	**604**	**19**	**10**	**29**	**11**	**21**	**32**
Existing Use: General Office Trip Generation							
Passenger Cars	408	50	7	57	9	45	54
Total Truck Trips (PCE)	0	0	0	0	0	0	0
Total Trips (PCE)	**408**	**50**	**7**	**57**	**9**	**45**	**54**
Net Trips (Proposed Project - Existing)	**196**	**-31**	**-3**	**-28**	**2**	**-24**	**-22**

[1] Trip rates from the Institute of Transportation Engineers' (ITE) *Trip Generation* Manual, 11th Edition (2021).

As **Table 4.7.5** shows, the proposed project is anticipated to generate a net increase of 196 two-way trips per day with a net reduction of 28 a.m. peak hour trips and a net reduction of 22 p.m. peak hour trips (in passenger car equivalents [PCE]).

Since the proposed project is likely to generate fewer than 50 net new peak-hour trips and fewer than 25 net new peak-hour trips at any single intersection, the implementation of the proposed project is not anticipated to result in any operational or LOS deficiencies; therefore, no further study is necessary.

The City's General Plan provides goals and policies to implement a balanced, functional, and efficient circulation system, and incorporate alternative modes of travel which allows for the safe movement of people and goods. General Plan policies CIR-2.5 and CIR-2.8 encourage the development of adequate sidewalks, particularly to provide connections to surrounding alternative modes of transportation. The project site currently provides sidewalks along Plaza Drive and Walker Drive allowing for pedestrian connections to nearby transit. Therefore, the proposed project would not inhibit the use of alternative transportation in the area and would not conflict with circulation policies in the General Plan. Impacts would be less than significant, and no mitigation is required.

Threshold TRA-2: Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Impact TRA-2: Less Than Significant Impact. The City requires that all CEQA-related VMT studies be conducted consistent with the State of California Governor's OPR Technical Advisory, and that screening criteria and impact thresholds are determined on a case-by-case basis in accordance with Caltrans' February 2020 VMT-Focused Transportation Impact Study Guide (TISG).

California Public Resources Code Section 15064.3(b)(4) states (in part) that:

> "A lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household, or in any other measure."

Additionally, the OPR Technical Advisory recommends VMT screening thresholds for smaller projects. The footnote on page 12 of the OPR Technical Advisory states the following:

> "Screening Threshold for Small Projects
>
> Many local agencies have developed screening thresholds to indicate when detailed analysis is needed. Absent substantial evidence indicating that a project would generate a potentially significant level of VMT, or inconsistency with a Sustainable Communities Strategy (SCS) or general plan, projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact."

The OPR Technical Advisory recommends that a project generating 110 average daily trips (ADT) or less be screened out of a VMT analysis due to the presumption of a less than significant impact. This

recommendation is not based on any analysis of GHG reduction but is instead based on the potential trip generation of a project that would be categorically exempt under CEQA.

As mentioned before, the proposed project includes the demolition of 150,626 square feet of office space and the construction of a new light industrial building that would be approximately 191,394 square feet in size. The proposed project does not qualify for any of the screening criteria, including the screening threshold for small projects because, as noted in **Table 4.7.5**, the proposed project would generate a net increase of 196 ADT and a total of 604 ADT. Therefore, a detailed VMT analysis was prepared.

The Orange County Transportation Analysis Model (OCTAM) was used to determine the VMT impact of the proposed project. OCTAM is a socioeconomic data-based model, hence project land uses were converted into model employment using land use-to-employment conversion factors. The ITE *Trip Generation Manual*, 11th Edition, was used to develop the conversion factors. The ITE *Trip Generation Manual* includes trip rates for different types of land uses by multiple unit types that were used to develop land use-to-employee conversion factors (i.e., employees per thousand square feet). The socioeconomic data (i.e., total number of jobs) for the proposed project were added to the project transportation analysis zone (TAZ) for the model run.

A baseline model run was conducted using the adjusted socioeconomic data for the project and project location TAZs. No circulation/network modifications were identified for inclusion in the model network. The outputs from this updated model run were used to calculate the VMT per employee for the project.

The VMT per employee metric is used to evaluate the project's proposed land use. The proposed project would constitute a significant impact if the project VMT metric is greater than 85 percent of the regional existing VMT metric. Hence the proposed project would constitute a significant impact if the project VMT per employee is greater than 85 percent of the Orange County VMT per employee (threshold). As shown in **Table 4.7.6**, the project's VMT per employee would be lower than the Orange County regional threshold; therefore, the proposed project would have a less than significant impact related to VMT, and no mitigation measures are required.

Table 4.7.6: Baseline Project and Regional VMT Per Employee Comparison

Baseline	5665 Plaza Drive (Project)	Entire Orange County[1]	Threshold[2]	% Difference	Significant Impact?
VMT per employee	20.3	24.1	20.5	-1%	No

Source: Compiled by LSA (2023).

[1] Obtained from the *Final Draft Guidelines For Evaluating Vehicle Miles Traveled Under CEQA for the County of Orange*, September 17, 2020.

[2] 85% of the regional average (24.1*0.85=20.5) baseline. Base year of the OCTAM model is 2016.

OCTAM = Orange County Transportation Analysis Model

VMT = vehicle miles traveled

Threshold TRA-3: Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Impact TRA-3: Less Than Significant with Mitigation Incorporated. Vehicular traffic to and from the project site would utilize the existing network of regional and local roadways that serve the project area. Access to the project site would be provided via two driveways at Plaza Drive and Douglas Drive. The design of the proposed project, including the internal roadways, ingress, egress, and other streetscape changes, would be subject to review by the City's Department of Public Works. The proposed project would include the relocation of the existing driveways. The new westernmost driveway would be the primary truck access point and path to the truck loading docks on the proposed building's west side. The eastern driveway would be a shared driveway with the parcel to the east.

Traffic from the proposed project site traveling to and from Valley View Street via Plaza Drive would head northbound on Valley View Street. Any southbound traffic on Valley View Street or eastbound traffic on Katella Avenue would originate from the intersection of Douglas Drive/Warland Drive. Trucks traveling from the proposed project building would utilize Plaza Drive to Valley View Street and Douglas Drive to Katella Avenue. A portion of the truck trips would continue east on Katella Avenue while the remainder of trucks would travel south on Valley View Street, consistent with the City's approved truck routes. The proposed project would contribute fewer than 50 peak hour trips at the intersection of Valley View and Katella Avenue that would fall below the City's threshold for analysis.[84] It is anticipated that Driveway 1 (on Douglas Drive) and Driveway 2 (on Plaza Drive) would be utilized by heavy trucks to access the project site. Driveway 1 is anticipated to be able to accommodate the ingress and egress of heavy trucks as currently designed, providing access to and from the east on Plaza Drive and south on Douglas Drive. Driveway 1 would serve as the primary driveway for heavy trucks accessing the project site. While Driveway 2 would accommodate the ingress and egress of heavy trucks along Plaza Drive, it is recommended that the northwest curb of Driveway 2 be modified to accommodate a 25-foot curb radius for the egress of heavy trucks. Implementation of **Mitigation Measure TRA-1**, described below, would require the installation of on-site traffic signing and striping. With implementation of **Mitigation Measure TRA-1**, the proposed project would have a less than significant impact related to transportation hazards.

Threshold TRA-4: Would the project result in inadequate emergency access?

Impact TRA-4: Less Than Significant Impact. As described above, vehicular access to the project site would be provided via two driveways at Plaza Drive and Douglas Drive. Plaza Drive would allow for adequate emergency access and all project improvements, including driveways, would be designed consistent with applicable emergency access standards. All emergency access routes to the proposed project and adjacent areas would be kept cleared and unobstructed during demolition and construction of the proposed project. No roadway closures or lane closures are anticipated as part of project construction. Therefore, the proposed project's effects on emergency access would be less than significant, and no mitigation is required.

[84] Urban Crossroads. 2023. *Goodman Commerce Center Traffic Analysis.* November 21, 2023.

4.7.7 Level of Significance Prior to Mitigation

The proposed project would have less than significant impacts related to conflicts with a program, plan, ordinance, or policy addressing the circulation system, and emergency access. However, the proposed project would have potential impacts to hazards due to geometric design features. **Mitigation Measure TRA-1** is incorporated to reduce that potential impact to a less than significant level.

Although the City has not yet adopted VMT metrics or thresholds of significant related to VMT, a VMT analysis was conducted using the recommendations and guidance of the OPR Technical Advisory to address State CEQA Guidelines Section 15064.3 subdivision (b). Based on the VMT analysis, the proposed project would have a less than significant impact.

4.7.8 Mitigation Measures

Mitigation Measure TRA-1 **Truck Access & Routing Plan and Truck Signage and Striping Plan.** The Applicant shall submit a Truck Access and Routing Plan to accommodate the circulation of trucks on site. Additionally, the Applicant shall prepare a Signage and Striping Plan, consistent with the provisions of the California Manual on Uniform Traffic Control Devices (CA MUTCD), that directs heavy trucks to the most appropriate access point. The Public Works Director of the City of Cypress, or designee, shall review and approve the Truck Access and Routing Plan and Signage and Striping Plan and confirm they have been incorporated into the project plans prior to the issuance of a building permit.

4.7.9 Regulatory Compliance Measures

No regulatory compliance measures are applicable to the proposed project.

4.7.10 Level of Significance after Mitigation

With the implementation of **Mitigation Measure TRA-1**, potentially significant impacts would be reduced below a level of significance.

4.7.11 Cumulative Impacts

Less Than Significant Impact. As defined in the State CEQA Guidelines, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probable future projects. Potential cumulative impacts would occur if the proposed project in combination with one or more of the cumulative projects would produce significant impacts to transportation. For purposes of analyzing potential cumulative transportation impacts, the cumulative impact study area is the traffic study area outlined in the TIA. The cumulative projects that were determined to potentially affect one or more of the four study area intersections include:

- Cypress Town Center (Multifamily Housing)
- The Square (Shopping Center / Multifamily Housing / Hotel / Medical Office Building)

- Goodman Commerce Center (High-Cube Warehousing)
- 5995 Plaza Drive (General Office)

The Future Year 2025 Condition includes the existing baseline traffic conditions, without project traffic conditions, and with project traffic conditions within the study area. Any additional traffic generated by other projects not on the cumulative projects list is likely accounted for through background ambient growth factors that have been applied to the peak hour volumes at study area intersections.

Future Year peak hour traffic operations have been evaluated for the study area intersections. As indicated in **Table 4.7.7**, the Future Year traffic conditions demonstrate that the study area intersections are anticipated to continue operating at an acceptable LOS under both Future Year Without and With Project traffic conditions.

Table 4.7.7: Future Year Plus Project Intersection Level of Service Summary

Intersection		Control	Peak Hour	2025 Without Project		2025 With Project		Project Impact	
				ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/Delay (Net Change)	Yes/No
1	Douglas Drive/Warland Drive and Katella Avenue	Signal	AM	0.477	A	0.486	A	0.009	No
			PM	0.559	A	0.565	A	0.006	No
		Signal (Delay)	AM	6.8	A	7.7	A	0.9	No
			PM	9.4	A	9.8	A	0.4	No
2	Douglas Drive/ Driveway 2 and Driveway 1/Plaza Drive	AWS	AM	N/A	N/A	N/A	N/A	N/A	No
			PM	N/A	N/A	N/A	N/A	N/A	No
		AWS (Delay)	AM	7.2	A	7.3	A	0.1	No
			PM	7.8	A	7.9	A	0.1	No
3	Existing Driveway/McDonnell Drive and Plaza Drive	CSS	AM	N/A	N/A	N/A	N/A	N/A	No
			PM	N/A	N/A	N/A	--	N/A	No
		CSS (Delay)	AM	10.9	B	10.9	B	0.0	No
			PM	12.0	B	11.9	B	(0.1)	No
4	Valley View Street and Plaza Drive/Chip Avenue	Signal	AM	0.582	A	0.582	A	0.000	No
			PM	0.856	D	0.860	D	.0004	No
		Signal (Delay)	AM	18.6	B	18.7	B	0.1	No
			PM	45.7	D	46.8	D	1.1	No

Source: *Traffic Impact Analysis* (Urban Crossroads, November 2023).
Note: Delay is reported in seconds.
CSS = cross-street stop control
ICU = Intersection Capacity Utilization
LOS = level of service
N/A = not available

As discussed in Section 4.7.4, the City of Cypress General Plan Circulation Element identifies LOS D or better as the desired citywide operating standard for most City streets. As shown in **Table 4.7.7**, traffic associated with the proposed project when combined with the cumulative projects would not exceed LOS D. Accordingly, the proposed project in combination with the cumulative projects would not conflict with circulation policies in the General Plan. Furthermore, like the proposed project, the

cumulative projects would be required to comply with applicable programs, plans, ordinances, and policies addressing the circulation system. Accordingly, the proposed project in combination with the cumulative projects would not result in significant cumulative impacts associated with conflicts with these programs, plans, and policies.

As shown above in **Table 4.7.6**, the proposed project's VMT per employee would be lower than the Orange County regional threshold; therefore, the proposed project would have a less than significant impact related to VMT. Like the proposed project, the cumulative projects would be required to evaluate VMT as part of the environmental review process for those projects. In the event significant VMT impacts were identified, the project would be required to adopt appropriate mitigation to reduce impacts to a less than significant level. Accordingly, the proposed project in combination with the cumulative projects would not result in significant cumulative impacts associated with VMT.

The proposed project would result in a less than significant impact with mitigation incorporated in relationship to design hazards. This mitigation would include a truck access and routing plan and truck signage and striping to help accommodate truck access to the proposed project driveways. Similarly, the neighboring Goodman Center Project would also incorporate a truck access and routing plan and truck signage and striping to help accommodate truck access. It is assumed that the other cumulative projects would be designed in a manner consistent with the City's design standards and designs would be subject to review and approval by the City's Public Works Department. Consistency with the City's requirements would prevent implementation of design hazards. Accordingly, the proposed project in combination with the cumulative projects would not result in significant cumulative impacts associated with design hazards.

Finally, the proposed project would allow for adequate emergency access via the two planned driveways. Similar to potential design hazards, it is assumed that the cumulative projects would be designed to meet the City's design standards and would be approved by the City prior to implementation. Therefore, the proposed project in combination with the cumulative projects would not result in significant cumulative impacts associated with emergency access.

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4.8 TRIBAL CULTURAL RESOURCES

This section provides a discussion of the existing tribal cultural resource environment and an analysis of potential impacts due to implementation of the 5665 Plaza Drive Project (proposed project). According to California PRC Section 21080.3.1 and Chapter 532, Statutes 2014 (i.e., AB 52), "tribal cultural resources" are defined as the following:

1. Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either: (A) included or determined to be eligible for inclusion in the California Register of Historical Resources; or (B) included in a local register of historical resources as defined in subdivision (k) of Section 5020.1

2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1

This section summarizes information obtained from SB 18 and AB 52 Native American consultation efforts completed in support of the proposed project. The record of these consultation efforts is contained in **Appendix H** of this EIR.

4.8.1 Scoping Process

The City received 3 comment letters during the public review period for the NOP. For copies of the NOP comment letters, refer to **Appendix A** of this Draft EIR. One comment letter included comments related to tribal cultural resources. The letter from the Native American Heritage Commission (NAHC) received on June May 10, 2024, outlined the City's tribal consultation requirements under AB 52 and SB 18.

4.8.2 Regulatory Setting

4.8.2.1 Federal Regulations

Archaeological Resources Protection Act of 1979 (6 U.S.C. § 470aa *et seq*.). The Archaeological Resources Protection Act was enacted in 1979 with the purpose of securing the protection of archaeological resources and sites on public lands and Native American lands, and to foster increased cooperation and exchange of information between governmental authorities, the professional archaeological community, and private individuals.

Native American Graves Protection and Repatriation Act (25 U.S.C. ch. 32 § 3001 *et seq*.).The Native American Graves Protection and Repatriation Act (NAGPRA) was passed in 1990 with the purpose of outlining a process for museums and federal agencies to return certain Native American cultural items (e.g., human remains, funerary objects, sacred objects, or objects of cultural patrimony) to lineal descendants, and culturally affiliated Indian tribes. NAGPRA also establishes procedures for the inadvertent discovery or planned excavation of Native American cultural items on federal or tribal lands. While these provisions do not apply to discovery or excavations on private or State lands, the collection portions of NAGPRA may apply to cultural items if they are under the control of an institution that receives federal funding. NAGPRA also makes it a criminal offense to traffic in Native American human remains without right of possession or in cultural items obtained in violation of NAGPRA.

4.8.2.2 State Regulations

Native American Heritage Commission (NAHC). In 1976, the California State Government passed AB 4239, creating the NAHC. The NAHC is responsible for identifying and categorizing Native American cultural resources as well as preventing damage to designated sacred sites and associated artifacts and remains. Legislation passed in 1982 authorized the NAHC to identify a Most Likely Descendant (MLD) when Native American remains are found outside the boundaries of a designated cemetery. An MLD has the authority to make recommendations in regard to the treatment and disposition of the discovered remains.

California Public Resources Code Sections 5097.9–5097.991. California PRC Sections 5097.9–5097.991 provide protection to Native American historical and cultural resources (including sanctified cemeteries, places of worship, religious sites, or sacred shrines) and sacred sites, and gives the NAHC enforcement authority.

Specifically, California PRC Section 5097.98 outlines procedures that must be followed in the event that human remains are discovered. The County Coroner shall make a determination within 2 working days from the time the person responsible for the excavation, or designee, notifies the County Coroner of the discovery or recognition of the human remains. If the County Coroner identifies the remains to be of Native American origin or has reason to believe that the remains are those of Native American origin, the County Coroner must contact the California NAHC within 24 hours. The NAHC representative will then alert a Native American MLD to conduct an inspection of the site and to determine the following course of treatment and action. Additionally, State CEQA Guidelines Section 15064.5 sets forth a procedure if human remains are found on land outside of federal jurisdiction.

Health and Safety Code Section 7050.5. Section 7050.5 of the California Health and Safety Code protects Native American burials, remains, and associated grave artifacts in the event they are discovered in any location other than a designated cemetery. The Health and Safety Code mandates the immediate stop of excavation on the site as well as any adjacent or overlying area where the remains or associated items are found and provides for the sensitive disposition of those remains. Should remains be discovered, the County Coroner must determine that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner, and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or designee, in the manner provided in PRC Section 5097.98.

Senate Bill 18 Tribal Consultation. California Government Code Section 65352.3 (adopted pursuant to the requirements of SB 18) requires local governments to contact, refer plans to, and consult with tribal organizations prior to making a decision to adopt or amend a General or Specific Plan. The tribal organizations eligible to consult have traditional lands in a local government's jurisdiction and are identified, upon request, by the NAHC. As noted in the Governor's Office of Planning and Research's *Tribal Consultation Guidelines, Supplement to General Plan Guidelines* (2005)[85], "the intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places."

Assembly Bill 52 Tribal Consultation. California PRC Section 21080.3.1 and Chapter 532, Statutes 2014 (i.e., AB 52), require that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource, as defined, is a project that may have a significant effect on the environment. The bill requires a lead agency to begin consultation with each California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project, if the tribe requested to the lead agency, in writing, to be informed by the lead agency of proposed projects in that geographic area and the tribe requests consultation, prior to determining whether a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report is required for a project. The bill specifies examples of mitigation measures that may be considered to avoid or minimize impacts on tribal cultural resources. The bill makes the above provisions applicable to projects that have a Notice of Preparation or a notice of Negative Declaration or Mitigated Negative Declaration filed on or after July 1, 2015. By requiring the lead agency to consider these effects relative to tribal cultural resources and to conduct consultation with California Native American tribes, this bill imposes a State-mandated local program.

4.8.2.3 Regional Regulations

There are no regional regulations that are applicable to tribal cultural resources relevant to the proposed project.

4.8.2.4 Local Regulations

There are no local regulations that are applicable to tribal cultural resources relevant to the proposed project.

4.8.3 Existing Environmental Setting

The area that is now the City of Cypress was prehistorically occupied by several different Native American tribes with unique oral histories, societal structures, and ways of life. This area is within the traditional boundaries of the Gabrielino. To date, no federally recognized tribes claim to have occupied the land that is now considered the City of Cypress.

4.8.4 Methodology

4.8.4.1 Senate Bill 18

California Government Code Section 65352.3 (adopted pursuant to the requirements of SB 18) requires local governments to contact, refer plans to, and consult with tribal organizations prior to making a decision to adopt or amend a General or Specific Plan. The tribal organizations eligible to consult have traditional lands in a local government's jurisdiction and are identified, upon request, by the NAHC. As noted in the Governor's Office of Planning and Research's *Tribal Consultation Guidelines, Supplement to General Plan Guidelines* (2005),[85] "The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places."

[85] Governor's Office of Planning and Research (OPR). 2005. *Tribal Consultation Guidelines, Supplement to General Plan Guidelines*. Website: https://www.parks.ca.gov/pages/22491/files/tribal_consultation_guidelines_ vol-4.pdf (accessed May 2023).

The NAHC was contacted to conduct a SLF search and to provide a list of Native American contacts for the project pursuant to SB 18. The NAHC responded on November 16, 2023, stating than an SLF search was completed for the opportunity sites with negative results. The NAHC recommended that 21 Native American individuals representing the Diegueno, Kumeyaay, Gabrielino, Gabrielino/ Tongva, Juaneño, Cahuilla, and Luiseño groups be contacted for information regarding tribal cultural resources that could potentially be affected by the project. These 21 individuals were contacted via letter by certified mail on November 20, 2023. The letters, which concurrently fulfilled both SB 18 and AB 52 requirements, provided each tribe with an opportunity to request consultation with the City regarding the proposed project. In compliance with SB 18, the tribes had 90 days from the date of receipt of notification to request consultation on the proposed project. A response was received from Chairman Andrew Salas on behalf of the Gabrieleño Band of Mission Indians – Kizh Nation. This response did not request consultation on the project but did request consultation on future projects within the area.

4.8.4.2 Assembly Bill 52

Chapter 532, Statutes of 2014 (i.e., AB 52), requires that Lead Agencies evaluate a project's potential to impact "tribal cultural resources." Such resources include sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are eligible for inclusion in the California Register or included in a local register of historical resources (PRC Section 21074). AB 52 also gives Lead Agencies the discretion to determine, supported by substantial evidence, whether a resource falling outside the definition stated above nonetheless qualifies as a "tribal cultural resource."

Also, per AB 52 (specifically PRC Section 21080.3.1), as Lead Agency, the City must consult California Native American tribes that are traditionally and culturally affiliated with the geographic area of the project site and have previously requested that the Lead Agency provide the tribe with notice of such projects. Only one response was received in response to the City's AB 52 letters. The Kizh Nation emailed City staff to request consultation. The Kizh Nation sent the City proposed mitigation measures for tribal cultural resources, which the City accepted with no modifications or revisions.

Letters have also been sent to Native American tribal contacts provided by the NAHC, as previously described. The letters, simultaneously compliant with both SB 18 and AB 52 guidelines, provided each tribe with an opportunity to request consultation with the City regarding the proposed project. In compliance with AB 52, tribes had 30 days from the date of receipt of notification to request consultation on the proposed project. No requests for consultation on the project were received in response to the transmitted SB 18/AB 52 combination letters.

4.8.5 Thresholds of Significance

The thresholds for tribal cultural resources impacts used in this analysis are consistent with Appendix G of the State CEQA Guidelines and the City's Initial Study/Environmental Checklist. The proposed project may be deemed to have a significant impact with respect to tribal cultural resources if it would:

Threshold TCR-1: Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site,

feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).

Threshold TCR-2: Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

4.8.6 Project Impacts

Threshold TCR-1: **Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?**

Impact TCR-1: No Impact. As previously discussed in Section 4.2, Cultural Resources, of this EIR, the project site does not contain any known historical resources. In addition, an SLF search for the site was requested from the NAHC on September 27, 2023, and no resources were noted in the database based on NAHC correspondence, dated November 16, 2023.

Native American consultation was conducted in compliance with AB 52. As part of the consultation process, a review of the SLF by the NAHC yielded negative results. Subsequently 21 Native American representatives were contacted by the City to determine their desire to consult on the proposed project, as detailed below.

- Campo Band of Diegueno Mission Indians
- Ewiiaapaayp Band of Kumeyaay Indians
- Gabrieleño Band of Mission Indians - Kizh Nation
- Gabrieleño/Tongva San Gabriel Band of Mission Indians
- Gabrielino/Tongva Nation
- Gabrielino Tongva Indians of California Tribal Council
- Gabrielino-Tongva Tribe
- Juaneño Band of Mission Indians Acjachemen Nation - Belardes

- Juaneño Band of Mission Indians Acjachemen Nation 84A
- La Posta Band of Diegueno Mission Indians
- Manzanita Band of Kumeyaay Nation
- Mesa Grande Band of Diegueno Mission Indians
- Pala Band of Mission Indians
- Santa Rosa Band of Cahuilla Indians
- Soboba Band of Luiseño Indians

During that process, the Gabrieleño Band of Mission Indians – Kizh Nation (Kizh Nation) stated that the project site is within their tribal territory and requested consultation with the City. The Kizh Nation was provided with a summary of the project and its location. No information regarding specific known tribal cultural resources on the project site was provided by the Kizh Nation. Therefore, the proposed project would not result in any impacts to tribal cultural resources that are listed or eligible for listing in the State or local register of historical resources. No mitigation is required.

Threshold TCR-2: **Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.**

Impact TCR-2: Less Than Significant with Mitigation Incorporated. Effective July 1, 2015, AB 52 requires meaningful consultation with California Native American Tribes on potential impacts to Tribal Cultural Resources, as defined in California PRC Section 21074. A tribe must submit a written request to the relevant lead agency if it wishes to be notified of proposed projects in its traditionally and culturally affiliated area. The lead agency must provide written formal notification to the tribes that have requested it within 14 days of determining that a project application is complete or of deciding to undertake a project. The tribe must respond to the lead agency within 30 days of receipt of the notification if it wishes to engage in consultation on the project, and the lead agency must begin the consultation process within 30 days of receiving the request for consultation. Consultation concludes when either (1) the parties agree to mitigation measures to avoid a significant effect, if one exists, on a tribal cultural resource, or (2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. AB 52 also addresses confidentiality during tribal consultation per PRC Section 21082.3(c).

California Government Code Section 65352.3 (adopted pursuant to the requirements of SB 18) requires local governments to contact, refer plans to, and consult with tribal organizations prior to making a decision to adopt or amend a general or specific plan, or to designate open space that includes Native American Cultural Places.

Correspondence to the tribes recommended by NAHC was transmitted on November 20, 2023. The City currently maintains a list of tribal councils based on a list of councils and corresponding Native American representatives that have requested to be notified of proposed projects in their respective areas of traditional and cultural affiliation. All tribal contacts on this list were sent a letter from the City on November 20, 2023, for the purposes of AB 52 consultation. Only one response was received in response to the City's AB 52 letters. The Kizh Nation emailed City staff to request consultation. The Kizh Nation sent the City proposed mitigation measures for tribal cultural resources, which the City accepted with no modifications or revisions.

As discussed previously in Section 4.2 Cultural Resources, the project site does not contain any "historical resources" as defined by CEQA. Therefore, the proposed project would not cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the State CEQA Guidelines or PRC 5020.1(k).

The project site is not likely to contain any prehistoric site or archaeological resources based on archival research and field surveys conducted for the project site. There is little potential for the proposed project to impact prehistoric resources due to the low likelihood of resource presence, significant prior disturbance from past grading and development activities on the project site and in the surrounding area. However, **Mitigation Measure CUL-1**, as provided in Section 4.2 Cultural Resources, has been included to mitigate potentially significant impacts associated with the unlikely discovery of archaeological resources, including tribal cultural resources (TCRs), on the project site. Therefore, implementation of **Mitigation Measure CUL-1** would reduce potentially significant impacts to unknown tribal cultural resources to a less than significant level.

The project site is not likely to contain any human remains due to the fact that soils on the site have been previously disturbed associated with prior disturbance from past grading and development activities on the project site and surrounding area. However, **Regulatory Compliance Measure CUL-1**, as provided in Section 4.2, has been included to mitigate potentially significant impacts associated with the unlikely discovery of human remains, including those determined to be of Native American descent, on the project site. Therefore, implementation of **Regulatory Compliance Measure CUL-1** would reduce potentially significant impacts to unknown human remains to a less than significant level.

As noted above, the Kizh Nation provided mitigation measures to address potential impacts related to tribal cultural resources. Implementation of **Mitigation Measures TCR-1 through TCR-3**, which incorporate the recommendations of the Kizh Nation, would reduce any potential impacts to previously undiscovered tribal cultural resources to a less than significant level. Therefore, on this basis and as a result of the City's consultation with the Kizh Nation or any other interested local Native American tribe, the City has concluded that, with implementation of **Mitigation Measures TCR-1 through TCR-3**, potential impacts related to unknown buried tribal cultural resources would also be reduced below a level of significance.

4.8.7 Level of Significance Prior to Mitigation

No impacts to known tribal cultural resources listed or eligible for listing in the California Register or in a local register would occur. Prior to mitigation, the proposed project has the potential to result in significant impacts to previously undiscovered tribal cultural resources.

4.8.8 Regulatory Compliance Measures and Mitigation Measures

4.8.8.1 Regulatory Compliance Measures

No Regulatory Compliance Measures are required.

4.8.8.2 Mitigation Measures

Refer to **Mitigation Measures TCR-1 through TCR-3**.

Mitigation Measure TCR-1

Retain a Native American Monitor Prior to Commencement of Ground-Disturbing Activities. The project Applicant/lead agency shall retain a Native American Monitor from or approved by the Gabrieleño Band of Mission Indians – Kizh Nation (Kizh Nation). The monitor shall be retained prior to the commencement of any "ground-disturbing activity" for the subject project at all project locations (i.e., both on-site and any off-site locations that are included in the project description/definition and/or required in connection with the project, such as public improvement work). "Ground-disturbing activity" shall include, but is not limited to, demolition, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching.

A copy of the executed monitoring agreement shall be submitted to the lead agency prior to the earlier of the commencement of any ground-disturbing activity, or the issuance of any permit necessary to commence a ground-disturbing activity.

The monitor will complete daily monitoring logs that will provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs will identify and describe any discovered TCRs, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., (collectively, tribal cultural resources, or "TCR"), as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs will be provided to the project Applicant/lead agency upon written request to the Tribe.

On-site tribal monitoring shall conclude upon the latter of the following (1) written confirmation to the Kizh Nation from a designated point of contact for the project Applicant/lead agency that all ground-disturbing activities and phases that may involve ground-disturbing activities on the project site or in connection with the project are complete; or (2) a determination and written notification by the Kizh Nation to the project Applicant/lead agency

that no future, planned construction activity and/or development/ construction phase at the project site possesses the potential to impact Kizh Nation TCRs.

Upon discovery of any TCRs, all construction activities in the immediate vicinity of the discovery shall cease (i.e., not less than the surrounding 50 feet) and shall not resume until the discovered TCR has been fully assessed by the Kizh Nation monitor and/or Kizh Nation archaeologist. The Kizh Nation will recover and retain all discovered TCRs in the form and/or manner the Tribe deems appropriate, in the Tribe's sole discretion, and for any purpose the Tribe deems appropriate, including for educational, cultural and/or historic purposes.

Mitigation Measure TCR-2

Unanticipated Discovery of Human Remains and Associated Funerary Objects. Native American human remains are defined in Public Resources Code 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in Public Resources Code Section 5097.98, are also to be treated according to this statute.

If Native American human remains and/or grave goods discovered or recognized on the project site, then all construction activities shall immediately cease. Health and Safety Code Section 7050.5 dictates that any discoveries of human skeletal material shall be immediately reported to the County Coroner and all ground-disturbing activities shall immediately halt and shall remain halted until the coroner has determined the nature of the remains. If the coroner recognizes the human remains to be those of a Native American or has reason to believe they are Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission, and Public Resources Code Section 5097.98 shall be followed.

Human remains and grave/burial goods shall be treated alike per California Public Resources Code Section 5097.98(d)(1) and (2).

Construction activities may resume in other parts of the project site at a minimum of 200 feet away from discovered human remains and/or burial goods, if the Kizh Nation determines in its sole discretion that resuming construction activities at that distance is acceptable and provides the project manager express consent of that determination (along with any other mitigation measures the Kizh Nation monitor and/or archaeologist deems necessary). (CEQA Guidelines Section 15064.5(f).)

Preservation in place (i.e., avoidance) is the preferred manner of treatment for discovered human remains and/or burial goods. Any historic archaeological material that is not Native American in origin (non-TCR) shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the archaeological material, it shall be offered to a local school or historical society in the area for educational purposes.

Any discovery of human remains/burial goods shall be kept confidential to prevent further disturbance.

Mitigation Measure TCR-3

Procedures for Burials and Funerary Remains. As the Most Likely Descendant ("MLD"), the Koo-nas-gna Burial Policy shall be implemented. To the Tribe, the term "human remains" encompasses more than human bones. In ancient as well as historic times, Tribal Traditions included, but were not limited to, the preparation of the soil for burial, the burial of funerary objects with the deceased, and the ceremonial burning of human remains.

If the discovery of human remains includes four or more burials, the discovery location shall be treated as a cemetery and a separate treatment plan shall be created.

The prepared soil and cremation soils are to be treated in the same manner as bone fragments that remain intact. Associated funerary objects are objects that, as part of the death rite or ceremony of a culture, are reasonably believed to have been placed with individual human remains either at the time of death or later; other items made exclusively for burial purposes or to contain human remains can also be considered as associated funerary objects. Cremations will either be removed in bulk or by means as necessary to ensure complete recovery of all sacred materials.

In the case where discovered human remains cannot be fully documented and recovered on the same day, the remains will be covered with muslin cloth and a steel plate that can be moved by heavy equipment placed over the excavation opening to protect the remains. If this type of steel plate is not available, a 24-hour guard should be posted outside of working hours. The Tribe will make every effort to recommend diverting the project and keeping the remains in situ and protected. If the project cannot be diverted, it may be determined that burials will be removed.

In the event preservation in place is not possible despite good faith efforts by the project Applicant/developer and/or landowner,

before ground-disturbing activities may resume on the project site, the landowner shall arrange a designated site location within the footprint of the project for the respectful reburial of the human remains and/or ceremonial objects.

Each occurrence of human remains and associated funerary objects will be stored using opaque cloth bags. All human remains, funerary objects, sacred objects and objects of cultural patrimony will be removed to a secure container on site if possible. These items should be retained and reburied within six months of recovery. The site of reburial/repatriation shall be on the project site but at a location agreed upon between the Tribe and the landowner at a site to be protected in perpetuity. There shall be no publicity regarding any cultural materials recovered.

The Tribe will work closely with the project's qualified archaeologist to ensure that the excavation is treated carefully, ethically and respectfully. If data recovery is approved by the Tribe, documentation shall be prepared and shall include (at a minimum) detailed descriptive notes and sketches. All data recovery data recovery-related forms of documentation shall be approved in advance by the Tribe. If any data recovery is performed, once complete, a final report shall be submitted to the Tribe and the NAHC. The Tribe does NOT authorize any scientific study or the utilization of any invasive and/or destructive diagnostics on human remains.

4.8.9 Level of Significance after Mitigation

No impacts to known tribal cultural resources listed or eligible for listing in the California Register or in a local register would occur. **Mitigation Measures TCR-1 through TCR-3** would reduce potential impacts to newly discovered tribal cultural resources to a less than significant level.

4.8.10 Cumulative Impacts

Defined in Section 15130 of the State CEQA Guidelines, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and reasonably foreseeable probable future projects in an area of interest.

The proposed project would result in less than significant impacts to known and unknown tribal cultural resources listed or eligible for listing in the California Register, in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or otherwise determined by the lead agency to be significant. Further, each individual development proposal received by the City that requires discretionary approval is required to undergo individual environmental review pursuant to CEQA. AB 52 outreach would be required for those discretionary projects for which a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report is prepared. Furthermore, impacts of other projects on tribal cultural resources are generally site-specific resulting from ground-disturbing activities, which would require unique impact analysis to

determine the nature and extent of the resources and identify appropriate mitigation measures that would reduce or avoid significant impacts. Thus, there is no potential for the project to contribute towards a significant cumulative impact associated with the significance of a tribal cultural resource pursuant to California Code of Regulations Section 15064.5.

Additionally, when resources can be assessed and/or protected as they are discovered, impacts to these resources are less than significant. As such, implementation of **Mitigation Measures TCR-1 through TCR-3** would ensure that the proposed project, together with the related projects, would not result in significant cumulative impacts to tribal cultural resources.

5.0 ALTERNATIVES

5.1 INTRODUCTION

This chapter of the EIR identifies potential alternatives to the 5665 Plaza Drive Project in the City of Cypress. This discussion includes a summary of the project and the project objectives, the project- related impacts, identification of the alternatives considered but rejected from further analysis, and presentation of the alternatives analysis, as well as identification of the environmentally superior alternative.

CEQA Guidelines Section 15126.6 requires that an EIR include a discussion of a reasonable range of project alternatives that would "feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any significant effects of the project and evaluate the comparative merits of the alternatives." EIRs are not required to evaluate alternatives that are infeasible, rather the purpose of the alternatives analysis is to foster informed decision making and public participation.

CEQA Guidelines Sections 15126.6 (e) and (f) specify:

- The "no project" alternative shall also be evaluated, along with its impact. If the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.

- The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the proposed project. Of those alternatives, the EIR needs to examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the proposed project. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision-making.

In addition to specifying that the EIR evaluate a range of reasonable alternatives to the proposed project, Section 15126.6 (c) of the CEQA Guidelines requires that an EIR identify any alternatives that were considered but were rejected as infeasible. Pursuant to the CEQA Guidelines, alternatives to the proposed project, including any considered but rejected, are also evaluated in this section.

5.2 SELECTION OF ALTERNATIVES

Section 21100 of the Public Resources Code and Section 15126 of the State CEQA Guidelines require an EIR to identify and discuss a No Project Alternative and a reasonable range of alternatives to the proposed project that would feasibly attain most of the basic objectives of the project and would avoid or substantially lessen any of the significant environmental impacts. Each

of the potentially significant impacts of the proposed project is capable of being mitigated to below a level of significance. The alternatives considered in this EIR include the following:

- **Alternative 1: No Project Alternative:** Consistent with State CEQA Guidelines Section 15126.6, the No Project Alternative assumes the existing land uses and condition of the project site at the time the Notice of Preparation (NOP) was published (May 2024) would remain unchanged. Under the No Action Alternative, the existing five-story office building on the project site would remain in place. The No Project Alternative represents the environmental conditions that would exist if no new development of any kind were to occur on the project site. The setting of the project site at the time the NOP was published is described in Chapter 4.0 of this Draft EIR with respect to individual environmental issues and forms the baseline of the impact assessment of the proposed project. While the No Project Alternative would avoid the potential impacts of the proposed project and require no mitigation measures, none of the project objectives would be achieved.

- **Alternative 2: Reduced Footprint Alternative:** Alternative 2 would occupy the same building footprint as the proposed project and would include the construction and operation of a light-industrial building on the project site; however, Alternative 2 would reduce the project footprint by one-third (33 percent). Under this alternative, it is assumed that the light industrial building would be built out at 127,596 square feet (63,798 square feet smaller than the proposed project) and operate at a reduced capacity as compared to the proposed project. Similar to the proposed project, Alternative 2 would be located on the same approximately 8.53-acre project site, include demolition of the existing 150,626-square-foot five-story office building, and construction of a new light industrial building, with associated landscaping, surface parking, and utility improvements. Alternative 2 would provide the same number of loading docks on the western side of the proposed building (25 docks) and the same number of parking spaces (206 parking stalls) on all sides of the new building. Similar to the proposed project, Alternative 2 would relocate the two existing driveways, providing a new westernmost driveway that would be the primary truck access point and path to the truck loading docks on the proposed building's west side, and a new eastern driveway, which would be a shared driveway with the parcel to the east.

- **Alternative 3 – No Refrigeration Warehouse Alternative:** Alternative 3 would occupy the same building footprint as the proposed project; however, the proposed building would not include cold storage space, nor would it accommodate the transport of refrigeration units by trucks accessing the project site. Because the proposed building would not accommodate refrigeration, Alternative 3 would utilize less energy and produce fewer operational emissions of criteria pollutants and greenhouse gases. Similar to the proposed project, Alternative 3 would be located on an approximately 8.53-acre site and include the demolition of the existing 150,626-square-foot five-story office building on the project site and the construction of a new 191,394-square-foot light industrial building with 181,061 square feet of warehouse space and 10,333 square feet of office space with associated landscaping, surface parking, and utility improvements. Alternative 3 would provide the same number of loading docks on the west side of the proposed building and include the same number of parking spaces on all sides of the new building. Additionally, similar to the proposed project, Alternative 3 would relocate

two existing driveways, providing a new westernmost driveway that would be the primary truck access point and path to the truck loading docks on the proposed building's west side and a new eastern driveway, which would be a shared driveway with the parcel to the east.

- **Alternative 4: Deep Dynamic Compaction and Stone Columns:** Alternative 4 would occupy the same building footprint as the proposed project; however, under Alternative 4, both deep dynamic compaction and stone columns would be utilized during construction to reduce the liquefaction potential of project soils. Deep dynamic compaction is a ground improvement technique which involves the repeated dropping of a heavy weight onto the ground surface from a predetermined height to improve the density and load-bearing capacity of soil layers. Similar to the proposed project, Alternative 4 would utilize a 10-ton weight which would be dropped at a height of 60 feet. Stone columns involve filling pre-augered cavities with aggregate, the aggregate is then compacted using static crowd pressure combined with a high frequency, low amplitude vibratory hammer. Deep dynamic compaction and stone columns would reduce the vibratory impact of the proposed project, as the proposed project would only utilize deep dynamic compaction methods for soil compaction. Under Alternative 4, stone columns would be placed around the periphery of the project site, while deep dynamic compaction would only be implemented near the central portions of the project site to reduce vibratory impacts to nearby buildings. Similar to the proposed project, Alternative 4 would be located on an approximately 8.53-acre site and include the demolition of the existing 150,626-square-foot five-story office building on the project site and the construction of a new 191,394-square-foot light industrial building with 181,061 square feet of warehouse space and 10,333 square feet of office space with associated landscaping, surface parking, and utility improvements. Alternative 4 would provide the same number of loading docks on the west side of the proposed building and include the same number of parking spaces on all sides of the new building. Additionally, similar to the proposed project, Alternative 4 would relocate two existing driveways, providing a new westernmost driveway that would be the primary truck access point and path to the truck loading docks on the proposed building's west side and a new eastern driveway, which would be a shared driveway with the parcel to the east.

For the purpose of this analysis, it is assumed that all of the alternatives would comply with applicable federal, State, and local regulations, policies, and ordinances. The alternatives and their impacts are further described below. The Alternatives analysis provides the following:

- A description of the alternative;

- An analysis of the potential environmental impacts of the alternative and the significance of those impacts (per Section 15126.6 of the State CEQA Guidelines, significant effects of an alternative shall be discussed but, in less detail, than those of the proposed project); and

- Summary comparison of the alternative relative to the proposed project's impacts, specifically addressing whether the alternative would meet the project objectives, eliminate or reduce impacts as compared to the project, and include other comparative merit.

5.2.1 Project Summary

As described in Chapter 3.0, Project Description, the proposed project would include the demolition of an existing five-story office building on the project site and the construction of a concrete tilt-up light industrial building. The proposed building would be 191,394 square feet in size including 181,061 square feet of warehouse space and 10,333 square feet of office space (5,184 square feet on the first floor and 5,149 square feet on the second floor). The proposed office space would be located at the southeast corner of the building. The maximum building height would be approximately 51 feet, 6 inches, to the top of the parapet on the northeast and southeast corners of the building; however, the majority of the building would have a maximum height of 40 feet. Additionally, the proposed project would include associated site improvements, including landscaping, surface parking, and utility improvements.

5.2.2 Project Objectives

The alternative is analyzed to determine whether it achieves the basic objectives of the proposed project. The underlying purpose of the proposed project would be to meet a greater market demand for state-of-the-art light industrial buildings by replacing a vacant office building. As stated in Chapter 3.0, the City has established the following intended specific objectives for the proposed project that would serve to aid decision-makers in their review of the proposed project and its associated environmental impacts:

1. To meet a greater market demand for state-of-the-art light industrial buildings by replacing a vacant office building.

2. To promote development that will attract new businesses to operate in the City.

3. To encourage business development that will generate a range of employment opportunities for the community.

4. To help attract new business enterprises that will result in a positive flow of revenue to the City.

5.2.3 Project-Related Impacts

As described further in Chapter 2.0, Introduction, the Initial Study (IS) for the proposed project (**Appendix B**) determined that all impacts would be less than significant for Aesthetics, Agricultural/Forestry Resources, Biological Resources, Hazards and Hazardous Materials, Hydrology/Water Quality, Land Use/Planning, Mineral Resources, Population/Housing, Public Services, Recreation, Utilities/Service Systems, and Wildfire. Accordingly, this EIR addresses potential impacts associated with Air Quality, Cultural Resources, Energy, Geology and Soils, Greenhouse Gas Emissions, Noise, Transportation, and Tribal Cultural Resources.

The proposed project would result in less than significant impacts to Air Quality, Energy, and Greenhouse Gas Emissions. No mitigation measures would be required to reduce project-related impacts, and the proposed project would not result in any significant unavoidable impacts.

The proposed project would result in less than significant impacts with mitigation incorporated to Cultural Resources, Geology and Soils, Noise; Transportation/Traffic; and Tribal Cultural Resources.

For the purpose of this alternatives analysis, it is assumed the alternatives would comply with applicable federal, State, and local regulations, policies, and ordinances. It is also assumed that all mitigation measures required for project implementation would also apply to any project alternative and that similar reductions in impacts would be achieved through such mitigation. Therefore, the following discussion focuses on the ability of the alternative to further reduce or lessen project impacts and the potential impacts of the project related to these issues.

5.3 ALTERNATIVES INITIALLY CONSIDERED BUT REJECTED FROM FURTHER CONSIDERATION

The following is a discussion of the development alternatives considered during the environmental review process and the reasons they were not selected for detailed analysis in the Alternatives section of this Draft EIR.

5.3.1 Alternative Sites Considered

In accordance with Section 15126.6(c) of the CEQA Guidelines, an EIR should identify alternatives considered for analysis but rejected as infeasible and briefly explain the reasons for their elimination. Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR is failure to meet most of the basic project objectives, infeasibility, or inability to avoid or substantially reduce significant environmental impacts. Alternatives that have been initially considered and rejected as infeasible include the following, which have been rejected, as detailed below, either because they would create new or more severe impacts compared to the proposed project, are repetitive of other alternatives, would not meet the project objectives and requirements, or are otherwise considered infeasible.

5.3.2 Off-Site Alternative

CEQA requires that the discussion of alternatives focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant impacts of the project. The key question and first step in the analysis is whether any of the significant impacts of the project would be avoided or substantially lessened by relocating the project. Only locations that would avoid or substantially lessen any of the significant impacts of the project need be considered for inclusion in the EIR (State CEQA Guidelines, Section 15126.6[f][2][A]). Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the Project Applicant can reasonably acquire, control, or otherwise have access to the alternative site (State CEQA Guidelines Section 15126.6[f][1]). If it is determined that no feasible alternative locations exist, the EIR must disclose the reasons for this conclusion (State CEQA Guidelines Section 15126.6[f][2][B]).

No alternative locations where the proposed project could be undertaken are analyzed in the Draft EIR. As discussed further below, there is no other property in the City that would support a development similar to the proposed project. The surrounding area is highly urbanized, and there

is no land of sufficient size currently available for development (approximately 8.53 acres) to develop the proposed project in an area that would be compatible with light industrial uses. In addition, the Applicant/Developer does not own or control any other property within the City or in the vicinity of the project site that would be suitable for development of the proposed project. Moreover, the Applicant/Developer cannot reasonably acquire or control an alternative site in a timely fashion that would allow for the implementation of a project with similar uses and square footage.

The following alternative sites were considered as potential alternatives to the project site, but eliminated for the reasons discussed above and below:

Alternative Site within the Specific Plan Area: The planning areas within the McDonnell Specific Plan Area are primarily designated for industrial, warehouse, office, and commercial uses. The light industrial uses of the proposed project would be compatible with the uses in Planning Area 1 (Industrial/Warehouse/Office) and Planning Area 2 (Industrial Warehouse). The proposed project is located in Planning Area 1. Planning Area 1 encompasses a total of approximately 16 acres. There is insufficient available space in the remaining parts of Planning Area 1 to accommodate the proposed project. Planning Area 2 is located directly adjacent to Planning Area 1 and encompasses an area of approximately 15 acres. There would be insufficient space within Planning Area 2 as all available areas are already built out or projects are currently under construction. As such neither planning area would have sufficient space to accommodate the proposed project. Development of the proposed project within another portion of the McDonnell Specific Plan is not a feasible option. Therefore, alternative sites within the specific plan area were rejected from further consideration and are not analyzed further in this Draft EIR.

Cypress Town Center and Commons Specific Plan 2.0: The Cypress Town Center and Commons Specific Plan 2.0, approved by voters in 2018 as part of a ballot initiative (Measure A), covers an approximately 154.4-acre area located approximately 1.1 mile west of the project site and generally bound by Cerritos Avenue, Katella Avenue, and Lexington Drive. The Cypress Town Center and Commons Specific Plan 2.0 established a comprehensive master plan and regulatory framework to develop a town center, housing, and public park space in parts of the Los Alamitos Race Course, the former Cypress Golf Club, and adjacent property. Although some of the property included in the Cypress Town Center and Commons Specific Plan 2.0 area may be currently available for development, the use of this potential alternative site for the proposed project is infeasible for several reasons. First, the Project Applicant does not own or control this land. Second, the available area within the Cypress Town Center and Commons Specific Plan 2.0's Town Center District, is planned for a variety of retail, entertainment, commercial, and residential uses to create a gathering place and "main street" for the community. Despite the fact that the light industrial facility included in the proposed project would not be an expressly prohibited use, it is reasonable to conclude that the facility would not be permitted within the Town Center District because it shares some key characteristics (a warehouse, loading docks, and large volumes of goods entering the site via trucks) with other land uses such as warehousing, that are expressly prohibited within the Town Center District. In addition, the proposed project's uses would not be permitted in any of the other land use districts in the Cypress Town Center and Commons Specific Plan 2.0 area. As noted above, the Cypress Town Center and Commons Specific Plan 2.0 was approved by the voters of the City of Cypress; therefore, with the exception of certain minor

adjustments, it may only be amended or repealed by a vote of the people. Development of the proposed project within the Cypress Town Center and Commons Specific Plan 2.0 is not a feasible option.

Development of the proposed project at an alternative site (assuming one was available) could potentially result in some environmental impacts that would be similar to or greater than those of the proposed project's environmental impacts, depending on the proximity of the alternate site to sensitive uses. Conversely, given that the project site is located in a highly urbanized area, it is unlikely that relocating the proposed project to another site would substantially lessen any of its impacts.

As such, no alternative sites were considered feasible because, as discussed above, the Applicant/ Developer does not own or control another project site in the City, no suitable alternative site is available that would achieve the underlying purpose and objectives of the proposed project, and development of the proposed project on an alternative site would likely result in many of the same environmental impacts as development of the proposed project on the project site. For these reasons, the alternative sites option was rejected from further consideration.

5.4 ALTERNATIVES UNDER CONSIDERATION

The following is a discussion of the alternatives considered in this EIR.

5.4.1 Alternative 1: No Project Alternative

Consistent with State CEQA Guidelines Section 15126.6, the No Project Alternative assumes the existing land uses and condition of the project site at the time the NOP was published (May 2024) would continue to exist without any changes. The setting of the project site at the time the NOP was published is described throughout Chapter 4.0 of this Draft EIR with respect to individual environmental issues and forms the baseline of the impact assessment of the proposed project. The No Project Alternative represents the environmental conditions that would exist if no new development of any kind were to occur on the project site. The No Project Alterative would allow existing conditions on the project site to remain unchanged. While the No Project Alternative would lessen or avoid impacts of the proposed project and require no mitigation measures, none of the project objectives would be achieved.

The following provides a description of the No Project Alternative and its anticipated environmental impacts. The emphasis of the analysis is on comparing the anticipated environmental impacts of the No Project Alternative to the environmental impacts associated with the proposed project. The discussion includes a determination of whether or not the No Project Alternative would reduce, eliminate, or create new significant environmental impacts and would or would not meet the objectives of the proposed project.

5.4.1.1 Environmental Analysis

Air Quality. The No Project Alternative would not require grading or construction, and, assuming no increase in occupancy to the existing office building, would not change or increase the intensity of the existing on-site use, nor increase vehicle trips to and from the project site. If the proposed project were not approved, the existing office building could be re-leased to tenants and new

tenants could move into the currently vacant office space, which would substantially increase vehicle trips in the area. Therefore, no additional air pollutant emissions related to construction and operations would be generated under the No Project Alternative. The No Project Alternative would result in **no impacts** to air quality. Therefore, the level of impact associated with this issue would be less under the No Project Alternative than the proposed project.

Cultural Resources. The No Project Alternative would not require any grading, site work, or demolition because no new development would occur on the project site. No buildings would be constructed on the project site. As no ground disturbance would occur, there is no potential for impacts to previously unidentified or as-of-yet undiscovered cultural materials that may exist at the project site. **No impacts** to on-site cultural resources would occur under this alternative. The level of impact associated with this issue would be less under the No Project Alternative than the proposed project.

Energy. The No Project Alternative would not require any grading, site work, or demolition due to construction on the project site. No new buildings would be constructed on the project site and no increased operations would occur. If the proposed project were not approved, the existing office building could be re-leased to tenants and new tenants could move into the currently vacant office space, which would increase energy demand from current conditions and increase vehicle trips to and from the project site. If no re-occupancy occurred (which is possible without any associated environmental review under existing permits), there would be no increased energy use under the No Project Alternative over existing conditions, resulting in no impacts related to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operations. Therefore, **no impact** related to energy resources would occur under this alternative. The level of impact associated with this issue would be less under the No Project Alternative than the proposed project.

Geology and Soils. The No Project Alternative would not require any grading, excavation, or site work because no demolition or construction activities would occur on the project site. As the project site would not be redeveloped under this alternative, no impact or increased potential for damage to structures/facilities or injury to persons resulting from geologic conditions or seismic/seismic-related events would occur. Furthermore, in the absence of any modification requiring ground disturbance, there would be no potential for impacts to previously unidentified or as-of-yet undiscovered potential paleontological resources that may be located on the project site. While the proposed project included **Regulatory Compliance Measure GEO-1** and **Mitigation Measure GEO-1 through Mitigation Measure GEO-2** to reduce impacts to liquefaction and paleontological resources to a less than significant level, **no impact** to geology and soils would occur under this alternative. The level of impact associated with this issue would be less under the No Project Alternative than the proposed project.

Greenhouse Gas Emissions. The No Project Alternative would not require any grading or site work because no new development would occur on the project site. No new buildings would be constructed on the project site. Although this alternative does not assume that the existing office building would be re-occupied in its entirety, it is possible that the building could be re-leased to new tenants. The increase in occupancy would increase emissions beyond what was assumed in this EIR as “baseline” conditions (e.g., 25 percent occupancy). Re-occupancy of the building could

occur without the need for additional environmental review. Therefore, although this alternative is assumed not to increase greenhouse gas emissions from new on-site uses or additional vehicle trips, based on the assumption that existing conditions would continue, emissions could increase substantially if the building is re-tenanted. No impacts related to greenhouse gas emissions would occur. Therefore, No Project Alternative would result in **no impact** to greenhouse gas emission. The level of impact associated with this issue would be reduced under the No Project Alternative compared to the proposed project.

Noise. The No Project Alternative would not involve any grading, deep dynamic compaction activities, construction vehicle, or truck trips, nor would it involve demolition activities. Therefore, the noise impacts that are typically associated with grading and construction would not occur under this alternative. While the proposed project includes **Regulatory Compliance Measure NOI-1** and **Mitigation Measure NOI-1** to reduce impacts to construction noise and vibration to a less than significant level, all construction impacts associated with this alternative are likely to be reduced and there would be **no impact**. If the proposed project were not approved, the existing office building could be re-leased to tenants and new tenants could move into the currently vacant office space, which would increase vehicle trips to and from the project site and thus increase traffic noise in the area. If no re-occupancy occurred (which is possible without any associated environmental review under existing permits), no noise impacts would occur. Additionally, the stationary noise sources associated with proposed industrial uses would be eliminated, reducing the ambient noise levels. Therefore, this alternative would result in **no impact** related to noise and vibration. The level of impact associated with this issue would be less under the No Project Alternative than the proposed project

Transportation. Under The No Project Alternative, the project site would remain in its current developed state, which includes an existing office building. This alternative would not directly result in an increase in daily traffic volumes on local or regional roadways; therefore, traffic operations at intersections and on roadway segments would not be altered. However, If the proposed project were not approved, the existing office building could be re-leased to tenants, and new tenants could move into the currently vacant office space. Under this scenario, vehicle trips would increase beyond what were assumed to be in this EIR as baseline conditions. A fully occupied office building would significantly increase trips beyond currently existing conditions. While the proposed project includes **Mitigation Measure TRA-1** to reduce impacts to reduce transportation hazards related to truck access and signage to a less than significant level, all impacts associated with this alternative are likely to be reduced and there would be **no impact** on transportation. The level of impact associated with this issue would be less under the No Project Alternative than the proposed project.

Tribal Cultural Resources. The No Project Alternative would not require any grading, site work, or removal of vegetation because no new development would occur on the project site. In addition, no new buildings would be constructed on the project site. As no disturbance of existing topography would occur, there is no potential for impacts to previously identified or any as-of-yet undiscovered tribal cultural materials that may exist. While the proposed project includes **Mitigation Measures TCR-1 through TCR-3**, to reduce tribal cultural resource impacts to a less than significant. The No Project Alternative would result in **no impact** to on-site tribal cultural resources. Therefore, **no impact** related to tribal cultural resources would occur under this

alternative. The level of impact associated with this issue would be less under the No Project Alternative than the proposed project.

5.4.1.2 Attainment of Project Objectives

While the No Project Alternative would eliminate the impacts associated with the proposed project, as well as those impacts determined to be **less than significant**, it would not meet any of the project objectives. Since the project site would remain undeveloped and vacant, this alternative would not: (1) meet a greater market demand for state-of-the-art light industrial buildings by replacing a vacant office building; (2) realize the City's industrial goal, policies, and programs to strengthen its economic base; (3) promote development that will attract new businesses to operate in the City; (4) encourage business development that will generate a range of employment opportunities for the community; or (5) help attract new business enterprises that will result in a positive flow of revenue to the City. As a result, this alternative would not meet the objectives of the proposed project.

5.4.2 Alternative 2: Reduced Footprint Alternative

The following provides a description of the Reduced Footprint Alternative and its anticipated environmental impacts. The purpose of the Reduced Footprint Alternative is to reduce the proposed light industrial square footage and facility footprint, which are the primary sources of project-related air quality, greenhouse gas, and transportation impacts.

The emphasis of the analysis is on comparing the anticipated environmental impacts of the Reduced Footprint Alternative to the environmental impacts associated with the proposed project. The discussion includes a determination of whether or not the Reduced Footprint Alternative would reduce, eliminate, or create new significant environmental impacts and would or would not meet the objectives of the proposed project.

The potential impacts associated with the Reduced Footprint Alternative are described below. As discussed, the Reduced Footprint Alternative would develop the same use as the proposed project on the same project site. As such, it can be assumed that construction methods, equipment, and activities would be similar for both the proposed project and this alternative. It can also be assumed that alterations to topography and vegetation on the site would be similar for both developments. The same regulations, ordinances, standards, and policies applicable to the proposed project would also be applicable to this alternative.

5.4.2.1 Environmental Analysis

Air Quality. The Reduced Footprint Alternative would develop a reduced size light industrial building on the same site as the proposed project. It is assumed that the proposed landscaping, surface parking, and utility improvements identified for the proposed project would remain the same under the Reduced Footprint and construction activities for the proposed project, and this alternative would be similar. However, due to the reduced development under this alternative, this alternative may result in reduced construction and operational emissions, including those due to vehicle trips and stationary equipment, compared to those under the proposed project.

The Reduced Footprint Alternative would result in an approximately 33 percent reduction in development, which would proportionally correlate with a reduction in the number of pollutants emitted during construction and operation of this alternative. As described in Section 4.1, Air Quality, of the EIR, the South Coast Air Basin (SCAB) is currently designated nonattainment for the federal and State standards for ozone (O_3), particulate matter 2.5 microns and less ($PM_{2.5}$), and particulate matter 10 microns in diameter and less (PM_{10}). Consistent with the proposed project, construction of the Reduced Footprint Alternative would not exceed the South Coast Air Quality Management District's (SCAQMD) thresholds, and impacts would **be less than significant**. No mitigation measures are required.

Operation of the Reduced Footprint Alternative would not exceed the significance criteria for daily volatile organic compounds (VOCs), carbon monoxide (CO), sulfur oxides (SO_X), PM_{10}, and $PM_{2.5}$ emissions. The Reduced Footprint Alternative would reduce the number of pollutants emitted during operation. Therefore, operation of the Reduced Footprint Alternative would result in a l**ess than significant impact** related to a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or State ambient air quality standard.

Consistent with the proposed project, the Reduced Footprint Alternative would result in **less than significant** impacts related to CO hot spots, odors, and health risk impacts during operation, and no mitigation measures are required.

All air quality impacts would be reduced compared to those of the proposed project and would be **less than significant.**

Cultural Resources. The Reduced Footprint Alternative would develop the same site as the proposed project and would result in similar alterations to the project site topography. Although the Reduced Footprint Alternative could result in a reduced construction footprint on the site, similar to the proposed project, this alternative would still involve construction on the project site that could potentially disturb previously unknown historical and archaeological resources and human remains, and result in significant impacts. As such, **Mitigation Measure CUL-1** and **Regulatory Compliance Measure CUL-1** would also be required for this alternative to reduce the impacts to less than significant levels. Therefore, under this alternative, potential impacts to cultural resources would be **less than significant with mitigation incorporated.** The level of impact associated with this issue would be similar under the Reduced Footprint Alternative to the proposed project.

Energy. Implementation of the Reduced Footprint Alternative assumes that the eastern portion of the project site would be developed with one light industrial building totaling 127,596 square feet. This represents a reduction in development of 63,798 square feet, or approximately 33 percent, compared to the proposed project. Therefore, implementation of this alternative would result in lower energy demand during construction and operation compared to the proposed project because of the reduced construction activity and level of development. Consistent with the proposed project, this alternative would be required to implement **Regulatory Compliance Measure EN-1** to reduce truck idling times. Therefore, the Reduced Footprint Alternative would result in a **less than significant impact** to the wasteful, inefficient, or unnecessary consumption of

fuel or energy during construction and operation and would incorporate renewable energy or energy efficiency measures into building design, equipment uses, and transportation. Therefore, this alternative would result in a **less than significant impact** related to energy resources. The level of impact associated with this issue would be less under the Reduced Footprint Alternative than the proposed project.

Geology and Soils. The Reduced Footprint Alternative would develop the same site as the proposed project and, therefore, would result in the same potential impacts related to geology and soils and seismic hazards as the proposed project. Consistent with the proposed project, compliance with Seismic and Building Standards in the Building Code as specified in **Regulatory Compliance Measure GEO-1** would be required as a condition under this alternative. Additionally, implementation of **Mitigation Measure GEO-1**, which would require the construction contractor to comply with the recommendations in the Geotechnical Evaluation to reduce the proposed project's impact related to liquefaction would reduce impacts related to liquefaction to less than significant. Therefore, with implementation **Regulatory Compliance Measure GEO-1** and **Mitigation Measure GEO-**, impacts resulting from strong seismic ground shaking, seismic-related ground failure, liquefaction, landslide, unstable slopes, expansive soils, and soil collapse would be **less than significant with mitigation incorporated.**

The Reduced Footprint Alternative would involve the same construction activities on the project site that could impact previously unknown unique paleontological resources or unique geologic features, as the proposed project. As such, implementation of **Mitigation Measure GEO-2** would be required to reduce potential impacts to less than significant levels. Therefore, impacts related to geology and soils under this alternative would be **less than significant with mitigation incorporated.** The level of impact associated with this issue would be similar under the Reduced Footprint Alternative to the proposed project.

Greenhouse Gas Emissions. Implementation of the Reduced Footprint Alternative would result in a reduction in development of 63,798 square feet, or approximately 33 percent, compared to the proposed project. Therefore, implementation of this alternative would result in lower energy demand during construction compared to the proposed project because of the reduction in development. This alternative would also result in reduced emissions from all operational greenhouse gas sources because the emissions from each source would vary in direct proportion to the building size. Total net annual operational emissions (which include energy, mobile, solid waste, and water consumption sources) for this alternative are assumed to be less than the proposed project. Therefore, the Reduced Footprint Alternative would have lower greenhouse gas emission impacts than the proposed project. Greenhouse gas emissions under this alternative, similar to the proposed project, would not exceed the 3,000 metric tons of carbon dioxide equivalent per year (MT CO_2e/year) threshold of significance. Therefore, this alternative would result in a **less than significant impact** related to greenhouse gas emissions. The level of impact associated with this issue would be less under the Reduced Footprint Alternative than the proposed project.

Noise. Construction activities under the Reduced Footprint Alternative would involve the use of generally the same types of construction equipment and vehicles as the proposed project; however, construction activities would take place at further distances from the nearest receptors

as under the proposed project. As a result, the daily construction noise levels generated under this alternative would be less than that generated by the construction of the proposed project. Consistent with the proposed project, **Regulatory Compliance Measure NOI-1** would still be required. Under this alternative deep dynamic compaction activities would occur at further distances from the nearby sensitive receptors and the potential for building damage would be less than the proposed project. Consistent with the proposed project, **Mitigation Measure NOI-1** would still be required to reduce the potential for vibration damage to a less than significant impact. However, due to the reduced project footprint under this alternative, the duration of construction would be reduced, the duration of exposure to noise and vibration impacts would be shorter, and the noise and vibration impacts to nearby receptors would be reduced. Therefore, impacts related to vibration under this alternative, would be **less than significant with mitigation incorporated**. The level of impact associated with this issue would be less under the Reduced Footprint Alternative than the proposed project.

Transportation. The Reduced Footprint Alternative would develop a smaller light industrial building (127,596 square feet, which is 63,798 square feet less than the proposed project) on the same site as the proposed project. It is assumed that the proposed landscaping, surface parking, and utility improvements identified for the proposed project would remain the same under the Reduced Footprint Alternative and construction activities for the proposed project and would be constructed consistent with City standards and regulations. The Reduced Footprint Alternative would result in less of an increase in vehicle trips to and from the project site because the number of trucks accessing the project site would be reduced by 33 percent. Under this alternative, all study area intersections would continue to operate at satisfactory LOS during both peak hours.

Consistent with the proposed project, the Reduced Footprint Alternative would result in **less than significant impacts** concerning conflicts with applicable programs, plans, ordinances, or policies addressing the circulation system, inconsistencies with CEQA Guidelines §15064.3, subdivision (b), and inadequate emergency access. Consistent the proposed project, the Reduced Footprint Alternative would require the implementation of **Mitigation Measure TRA-1**, which involves the installation of on-site traffic signing and striping to direct heavy trucks to the driveway on Douglas Drive. Impacts related to hazards due to a geometric design feature under this alternative would result in a **less than significant impact with mitigation incorporated.** The level of impact associated with this issue would be less under the Reduced Footprint Alternative than the proposed project.

Tribal Cultural Resources. The Reduced Footprint Alternative would develop the same site as the proposed project and would result in similar alterations to the project site topography. Due to the reduced project size proposed under this alternative, this alternative could result in a reduced construction footprint. However, construction of this alternative would still result in ground-disturbing activities that could impact previously unknown tribal cultural resources. Consistent with the proposed project, this alternative would be required to implement **Mitigation Measure CUL-1** and **Regulatory Compliance Measure CUL-1**, to reduce potentially significant impacts to unknown tribal cultural resources and the discovery of human remains, including those determined to be of Native American descent, to a less than significant level. Additionally, the Reduced Footprint Alternative would be required to implement **Mitigation Measures TCR-1 through TCR-3** to reduce potential impacts related to unknown buried tribal cultural resources to

a less than significant level. Therefore, impacts related to Tribal Cultural Resources under this alternative would be **less than significant with mitigation incorporated.** The level of impact associated with this issue would be similar under the Reduced Footprint Alternative than the proposed project.

5.4.2.2 Attainment of Project Objectives

As discussed above, the Reduced Footprint Alternative would develop a smaller light industrial building (127,596 square feet, which is 63,798 square feet less than the proposed project) on the same site as the proposed project. The Reduced Footprint Alternative would fulfill project objectives by constructing a light industrial facility that would provide (1) a greater market demand for state-of-the-art light industrial buildings by replacing a vacant office building; realize the City's industrial goal, policies, and programs to strengthen its economic base; (2) promote development that will attract new businesses to operate in the City; (3) encourage business development that will generate a range of employment opportunities for the community; and (4) help attract new business enterprises that will result in a positive flow of revenue to the City. However, due to the reduced development proposed under this alternative, it would not provide the same capacity or employment opportunities as the proposed project. As such, this alternative would only partially meet project objectives.

5.4.3 Alternative 3: No Refrigeration Warehouse Alternative

The following provides a description of the No Refrigeration Warehouse Alternative and its anticipated environmental impacts. The purpose of the No Refrigeration Warehouse Alternative is to eliminate cold storage space in the proposed light industrial building and truck refrigeration units, which are the primary source of project-related operational air quality impacts and greenhouse gas emissions.

The emphasis of the analysis is on comparing the anticipated environmental impacts of the No Refrigeration Warehouse Alternative to the environmental impacts associated with the proposed project. The discussion includes a determination of whether or not the No Refrigeration Warehouse Alternative would reduce, eliminate, or create new significant environmental impacts and would or would not meet the objectives of the proposed project.

The potential impacts associated with the No Refrigeration Warehouse Alternative are described below. As discussed, the No Refrigeration Warehouse Alternative would develop the same use as the proposed project on the same project site. As such, it can be assumed that construction methods, equipment, and activities would be similar for both the proposed project and this alternative. It can also be assumed that alterations to topography and vegetation on the site would be similar for both developments. The same regulations, ordinances, standards, and policies applicable to the proposed project would also be applicable to this alternative.

5.4.3.1 Environmental Analysis

Air Quality. The No Refrigeration Warehouse Alternative would include the same building footprint as the proposed project, on the same site as the proposed project. It is assumed that the proposed landscaping, surface parking, and utility improvements identified for the proposed project would remain the same under the No Refrigeration Warehouse Alternative. Construction

activities for the proposed project would also remain the same. However, during operation, the No Refrigeration Warehouse Alternative would not include any refrigerated cold storage space in the light industrial building or the transport of refrigeration units by trucks accessing the project site. Consistent with the proposed project, construction of the No Refrigeration Warehouse Alternative would not exceed the SCAQMD's thresholds, and impacts would be **less than significant**.

Operation of the No Refrigeration Warehouse Alternative would not exceed the significance criteria for daily VOCs, CO, SO_X, PM_{10}, and $PM_{2.5}$ emissions The No Refrigeration Warehouse Alternative would reduce the number of pollutants emitted during operation, specifically emissions related to mobile source and energy source emissions. Therefore, consistent with the proposed project, operation of the No Refrigeration Warehouse Alternative would result in a **less than significant impact** related to a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or State ambient air quality standard.

Consistent with the proposed project, the No Refrigeration Warehouse Alternative would result in a **less than significant impact** related to CO hot spots, odors, and health risk impacts during operation, and no mitigation measures are required.

Operational air quality impacts would be reduced compared to those of the proposed project and would be **less than significant**. Therefore, the level of impact associated with this issue would be less under the No Refrigeration Warehouse Alternative than the proposed project.

Cultural Resources. The No Refrigeration Warehouse Alternative would include the same building footprint as the proposed project; however, the No Refrigeration Warehouse Alternative would not include any cold storage space in the light industrial building or the transport of refrigeration units by trucks accessing the project site. The No Refrigeration Warehouse Alternative would result in the same construction footprint on the site as the proposed project. Consistent with the proposed project, construction of this alternative has the potential to impact unidentified archaeological resources during ground-disturbing activities. As such, **Mitigation Measure CUL-1** and **Regulatory Compliance Measure CUL-1** would also be required for this alternative to reduce the impacts to less than significant levels. Therefore, under this alternative, potential impacts to cultural resources would be **less than significant with mitigation incorporated.** The level of impact associated with this issue would be similar under the No Refrigeration Warehouse Alternative to the proposed project.

Energy. The No Refrigeration Warehouse Alternative would include the same building footprint as the proposed project; however, the No Refrigeration Warehouse Alternative would not include any cold storage space in the light industrial building or the transport of refrigeration units by trucks accessing the project site. The No Refrigeration Warehouse Alternative would result in the same construction activities on the site as the proposed project; however, the implementation of this alternative would result in lower energy demand during operation compared to the proposed project due to the of the elimination of cold storage and refrigerated trucks accessing the project site. Consistent with the proposed project, compliance with **Regulatory Compliance Measure EN-1,** which would reduce energy usage on the project site during construction through reducing

truck idling times, would be required under this alternative. With implementation of the regulatory compliance measure, impacts related to energy resources during project construction would be less than significant. The No Refrigeration Warehouse Alternative would not result in the wasteful, inefficient, or unnecessary consumption of fuel or energy during construction or operation and would incorporate renewable energy or energy efficiency measures into building design, equipment uses, and transportation. Therefore, this alternative would result in a **less than significant impact** to energy resources. The level of impact associated with this issue would be less under the No Refrigeration Warehouse Alternative than the proposed project.

Geology and Soils. The No Refrigeration Warehouse Alternative would develop the same site as the proposed project and therefore, would result in the same potential impacts related to geology and soils and seismic hazards. Consistent with the proposed project, compliance with Seismic and Building Standards in the Building Code as specified in **Regulatory Compliance Measure GEO-2** would be required as a condition under this alternative. Additionally, implementation of **Mitigation Measure GEO-1**, which would require the construction contractor to comply with the recommendations in the Geotechnical Evaluation to reduce the proposed project's impact related to liquefaction, would reduce impacts related to liquefaction to less than significant and this impact would be **less than significant with mitigation incorporated.** The No Refrigeration Warehouse Alternative would involve the same construction activities on the project site, as the proposed project, which could impact previously unknown unique paleontological resources or unique geologic features. As such, implementation of **Mitigation Measure GEO-2** would be required to reduce potential impacts to less than significant levels and this impact would be **less than significant with mitigation incorporated**. The level of impact associated with this issue would be similar under the No Refrigeration Warehouse Alternative than the proposed project.

Greenhouse Gas Emissions. The No Refrigeration Warehouse Alternative would include the same building footprint as the proposed project; however, the No Refrigeration Warehouse Alternative would not include any cold storage in the light industrial building or the transport of refrigeration units by trucks accessing the project site. The No Refrigeration Warehouse Alternative would result in the same demolition and construction activities and would produce similar greenhouse gas emissions as the proposed project. Under this alternative, operational emissions associated with mobile-source emissions, and energy consumption would be reduced; however, area sources emissions (e.g., maintenance activities and landscaping), waste sources (land filling and waste disposal), and water sources (water supply and conveyance, treatment, and distribution) emissions would be similar to the proposed project. Therefore, this alternative would result in a **less than significant impact** to greenhouse gas emissions. The level of impact associated with this issue would be less under the No Refrigeration Warehouse Alternative than the proposed project.

Noise. Construction activities under the No Refrigeration Warehouse Alternative would involve the use of the same types of construction equipment and vehicles as the proposed project, and construction activities would take place at the same distances from the nearest receptors as under the proposed project. As a result, the daily construction noise levels generated under this alternative would be comparable to those generated by the construction of the proposed project, and compliance with **Regulatory Compliance Measure NOI-1** would still be required; this alternative would also result in similar vibration impacts at the nearby sensitive receptors and **Mitigation Measure NOI-1** would still be required to reduce the potential for vibration damage to

a less than significant impact. Under this alternative vibration impacts would be **less than significant with mitigation incorporated.**

Operation of the No Refrigeration Warehouse Alternative has the potential to reduce operational noise as this alternative would not include cold storage fan units. Under the proposed project, these cold storage fan units would operate 24 hours per day and generate a noise level of 57.5 A-weighted decibel equivalent continuous sound level (dBA L_{eq}) at 60 feet. Under the No Refrigeration Warehouse Alternative, it is assumed that the elimination of cold storage would also eliminate the need for cold storage fan units within the warehouse, reducing operational noise compared to the proposed project. Therefore, impacts related to **operational noise** under this alternative, would be **reduced when compared** to the proposed project. The level of impact associated with this issue would be **less** under the No Refrigeration Warehouse than the proposed project.

Transportation. The No Refrigeration Warehouse Alternative would include the same building footprint as the proposed project; however, the No Refrigeration Warehouse Alternative would not include any cold storage space in the light industrial building or the transport of refrigeration units by trucks accessing the project site. The No Refrigeration Warehouse Alternative would result in the same construction activities on the site as the proposed project; however, implementation of this alternative would eliminate cold storage in the proposed warehouse space and would eliminate all refrigerated trucks, reducing the number of daily truck trips. Under this alternative, all study area intersections would continue to operate at satisfactory LOS during both peak hours.

Consistent with the proposed project, the No Refrigeration Warehouse Alternative would result in **less than significant impacts** concerning conflicts with applicable programs, plans, ordinances, or policies addressing the circulation system, inconsistencies with CEQA Guidelines §15064.3, subdivision (b), and inadequate emergency access. Consistent the proposed project, the No Refrigeration Warehouse Alternative would require the implementation of **Mitigation Measure TRA-1**, which involves the installation of on-site traffic signing and striping to direct heavy trucks to the driveway on Douglas Drive. Impacts related to hazards due to a geometric design feature under this alternative would result in a **less than significant impact with mitigation incorporated.** The level of impact associated with this issue would be less under the No Refrigeration Warehouse Alternative than the proposed project.

Tribal Cultural Resources. The No Refrigeration Warehouse Alternative would include the same building footprint as the proposed project, would develop the same site as the proposed project and would result in similar alterations to the project site topography. Construction of this alternative would still result in ground-disturbing activities that could impact previously unknown tribal cultural resources. Consistent with the proposed project, the No Refrigeration Warehouse Alternative would be required to implement Mitigation **Measure CUL-1 and Regulatory Compliance Measure CUL-1**, to reduce potentially significant impacts to unknown tribal cultural resources and the discovery of human remains, including those determined to be of Native American descent, to a less than significant level. Additionally, the No Refrigeration Warehouse Alternative would be required to the implement **Mitigation Measures TCR-1 through TCR-3** to reduce potential impacts related to unknown buried tribal cultural resources to a less than

significant level. Therefore, impacts related to Tribal Cultural Resources under this alternative would be **less than significant with mitigation incorporated.** The level of impact associated with this issue would be similar under the No Refrigeration Warehouse to the proposed project.

5.4.3.2 Attainment of Project Objectives

As discussed above, the No Refrigeration Warehouse Alternative would include the same building footprint as the proposed project; however, the No Refrigeration Warehouse Alternative would not include any cold storage space in the light industrial building or the transport of refrigeration units by trucks accessing the project site. While the No Refrigeration Warehouse Alternative would reduce the operational emissions of criteria pollutants, operational greenhouse gas emissions, operational energy consumption, and stationary noise levels, when compared with the proposed project, this alternative would not totally fulfill Project Objectives 2 and 4, as warehouse projects without cold storage would by definition exclude certain users and generally not be as competitive as warehouses with cold storage. As such, this alternative would only partially meet project objectives.

5.4.1 Alternative 4: Deep Dynamic Compaction and Stone Columns

The following provides a description of the Deep Dynamic Compaction and Stone Columns Alternative and its anticipated environmental impacts. The purpose of the Deep Dynamic Compaction and Stone Columns Alternative is to reduce vibratory impacts to sensitive receptors within the vicinity of the proposed project.

The emphasis of the analysis is on comparing the anticipated environmental impacts of the Deep Dynamic Compaction and Stone Columns Alternative to the environmental impacts associated with the proposed project. The discussion includes a determination of whether or not the Deep Dynamic Compaction and Stone Columns Alternative would reduce, eliminate, or create new significant environmental impacts and would or would not meet the objectives of the proposed project.

The potential impacts associated with the Deep Dynamic Compaction and Stone Columns Alternative are described below. As discussed, the Deep Dynamic Compaction and Stone Columns Alternative would develop the same use as the proposed project on the same project site. As such, it can be assumed that construction methods, equipment, and activities would be similar for both the proposed project and this alternative. It can also be assumed that alterations to topography and vegetation on the site would be similar for both developments. The same regulations, ordinances, standards, and policies applicable to the proposed project would also be applicable to this alternative.

5.4.1.1 Environmental Analysis

Air Quality. The Deep Dynamic Compaction and Stone Columns Alternative would include the same building footprint as the proposed project and the same construction footprint. Implementation of this alternative would result in the same operational air quality impacts as the proposed project; however, the installation of stone columns alongside deep dynamic compaction would require additional construction equipment such as an auger rig and compactors. While the addition of construction equipment has the potential to increase construction emissions when

compared to the proposed project, these emissions would be short term and would not represent a significant increase when compared to the proposed project. Therefore, under the Deep Dynamic Compaction and Stone Columns Alternative, project construction would not exceed the SCAQMD's thresholds, and impacts would be **less than significant.**

Operation of the Deep Dynamic Compaction and Stone Columns Alternative would not exceed the significance criteria for daily VOCs, CO, SO_X, PM_{10}, and $PM_{2.5}$ emissions. The Deep Dynamic Compaction and Stone Columns Alternative would include the same operational impacts as the proposed project and would result in a **less than significant impact** related to a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or State ambient air quality standard.

Consistent with the proposed project, the Deep Dynamic Compaction and Stone Columns Alternative would result in a **less than significant impact** related to CO hot spots, odors, and health risk impacts during operation, and no mitigation measures are required.

Construction emissions under this alternative may result in a negligible increase compared to those of the proposed project. Therefore, the level of impact associated with this issue would be similar under the Deep Dynamic Compaction and Stone Columns Alternative to the proposed project.

Cultural Resources. The Deep Dynamic Compaction and Stone Columns Alternative would include the same building footprint as the proposed project and would develop the same site as the proposed project; however, under this alternative, both deep dynamic compaction and stone columns would be used during construction. Construction activities associated with stone columns would involve the use of augers at shallow-to-medium depths below the ground surface for the drilling of the initial cavities for the installation of stone columns. Under the proposed project, only deep dynamic compaction would be used, and these activities would not include excavation; however, the vibration impacts caused by this activity would likely impact buried archaeological resources, if present. Therefore, consistent with the proposed project, construction using the Deep Dynamic Compaction and Stone Columns Alternative has the potential to impact unidentified archaeological resources during ground-disturbing activities. Implementation of **Mitigation Measure CUL-1** would be required under this alternative to reduce potential impacts to unknown archaeological resources to a less than significant level. Additionally, adherence to **Regulatory Compliance Measure CUL-1** would be required as part of this alternative to ensure that the project has minimal impacts related to unknown buried human remains. Therefore, the level of impact associated with this issue would be similar under the Deep Dynamic Compaction and Stone Columns Alternative to the proposed project.

Energy. Implementation of the Deep Dynamic Compaction and Stone Columns Alternative would include the same building footprint as the proposed project; however, the Deep Dynamic Compaction and Stone Columns Alternative would involve both deep dynamic compaction activities and the installation of stone columns to mitigate the soils liquefaction potential. Under this alternative, impacts to energy during construction would be similar to that of the proposed project. Consistent with the proposed project, this alternative would be required to implement **Regulatory Compliance Measure EN-1** to reduce truck idling times. Therefore, the Deep Dynamic

Compaction and Stone Columns Alternative would result in a **less than significant impact** to the wasteful, inefficient, or unnecessary consumption of fuel or energy during construction and operation and would incorporate renewable energy or energy efficiency measures into building design, equipment uses, and transportation. Therefore, this alternative would result in a **less than significant impact** related to energy resources. The level of impact associated with this issue would be similar under the Deep Dynamic Compaction and Stone Columns Alternative to the proposed project.

Geology and Soils. The Deep Dynamic Compaction and Stone Columns Alternative would develop the same site as the proposed project and, therefore, would result in similar potential impacts related to geology and soils and seismic hazards as the proposed project. Consistent with the proposed project, compliance with Seismic and Building Standards in the Building Code as specified in **Regulatory Compliance Measure GEO-1** would be required as a condition under this alternative. Additionally, implementation of **Mitigation Measure GEO-1**, which would require the construction contractor to comply with the recommendations in the Geotechnical Evaluation to reduce the proposed project's impact related to liquefaction, would reduce impacts related to liquefaction to less than significant. Therefore, with implementation of the regulatory compliance measure and mitigation measure, impacts resulting from strong seismic ground shaking, seismic-related ground failure, liquefaction, landslide, unstable slopes, expansive soils, and soil collapse would be **less than significant with mitigation incorporated.**

The Deep Dynamic Compaction and Stone Columns Alternative would involve the use of augers at shallow-to-medium depths below the ground surface for drilling of the initial cavities for the installation of stone columns. Under the proposed project, only deep dynamic compaction would be used and these activities would not include excavation; however, the vibration impacts caused by this activity would likely impact buried paleontological resources or unique geologic features, if present. Therefore, consistent with the proposed project, construction using the Deep Dynamic Compaction and Stone Columns Alternative has the potential to impact paleontological resources or unique geologic features during ground-disturbing activities. As such, implementation of **Mitigation Measure GEO-2** would be required to reduce potential impacts to less than significant levels. Therefore, impacts related to geology and soils under this alternative would be **less than significant with mitigation incorporated.** The level of impact associated with this issue would be similar under the Deep Dynamic Compaction and Stone Columns Alternative to the proposed project.

Greenhouse Gas Emissions. The Deep Dynamic Compaction and Stone Columns Alternative would include the same building footprint as the proposed project and the same construction footprint. Implementation of this alternative would result in similar construction and operational greenhouse gas emissions, including those due to mobile sources (e.g., cars and trucks), area sources (e.g., maintenance activities and landscaping), indirect emissions from sources associated with energy consumption, waste sources (landfilling and waste disposal), and water sources (water supply and conveyance, treatment, and distribution). Therefore, impacts related to greenhouse gas emissions would be **less than significant** under this alternative. The level of impact associated with this issue would be similar under the Deep Dynamic Compaction and Stone Columns Alternative to the proposed project.

Noise. The Deep Dynamic Compaction and Stone Columns Alternative would develop the same site as the proposed project and would involve similar construction activities including demolition, grading, site preparation, building construction, architectural coating, and paving activities; however, under this alternative both deep dynamic compaction and stone columns would be utilized for soil stabilization. This alternative would only utilize deep dynamic compaction within the central portion of the project site, while stone columns would be installed around the periphery of the project site. Under this alternative, it is assumed the deep dynamic compaction activities would not be implemented within 80 feet of the nearest buildings to reduce potential building damage and vibration impacts. While this alternative may generate short-term noise and vibration impacts from associated equipment, compliance with **Regulatory Compliance Measure NOI-1** would reduce construction noise and vibration, and impacts would be **less than significant.**

Operational activities under the Deep Dynamic Compaction and Stone Columns Alternative would involve the same operational activities and generate the noise impacts from project operations as the proposed project. Consistent with the proposed project, under this alternative, noise and vibration impacts would be **less than significant.**

Transportation. The Deep Dynamic Compaction and Stone Columns Alternative would include the same building footprint as the proposed project and would result in generally similar construction activities on the site as the proposed project with generally similar trip generation characteristics. Similar to the proposed project, all study area intersections would continue to operate at satisfactory LOS during both peak hours under the Deep Dynamic Compaction and Stone Columns Alternative.

Consistent with the proposed project, the Deep Dynamic Compaction and Stone Columns Alternative would result in a **less than significant impact** concerning conflicts with applicable programs, plans, ordinances, or policies addressing the circulation system, inconsistencies with CEQA Guidelines §15064.3, subdivision (b), and inadequate emergency access. Consistent with the proposed project, the Deep Dynamic Compaction and Stone Columns Alternative would require the implementation of **Mitigation Measure TRA-1**, which involves the installation of on-site traffic signing and striping. Impacts related to hazards due to a geometric design feature under this alternative would result in a **less than significant impact with mitigation incorporated**. The level of impact associated with this issue would be similar under the Deep Dynamic Compaction and Stone Columns Alternative to the proposed project.

Tribal Cultural Resources. The Deep Dynamic Compaction and Stone Columns Alternative would include the same building footprint as the proposed project; and would develop the same site as the proposed project and would result in similar alterations to the project site topography. The Deep Dynamic Compaction and Stone Columns Alternative would involve the use of augers at shallow-to- medium depths below the ground surface for the drilling of the initial cavities for the installation of stone columns. Both deep dynamic compaction and stone column activities could impact previously unknown tribal cultural resources. Consistent with the proposed project, the Deep Dynamic Compaction and Stone Columns Alternative would be required to implement **Mitigation Measures TCR-1 through TCR-3** to reduce potential impacts related to unknown buried tribal cultural resources to a **less than significant leve**l. Therefore, impacts related to Tribal Cultural Resources under this alternative would be **less than significant with mitigation**

incorporated. The level of impact associated with this issue would be similar under the Deep Dynamic Compaction and Stone Columns Alternative to the proposed project.

5.4.1.2 Attainment of Project Objectives

As discussed above, the Deep Dynamic Compaction and Stone Columns Alternative would include the same building footprint as the proposed project; however, the Deep Dynamic Compaction and Stone Columns Alternative would only include the use of deep dynamic compaction activities within the central portion of the project site and would utilize stone columns around the periphery of the project site during construction. The Deep Dynamic Compaction and Stone Columns Alternative would reduce impacts to ground-borne vibration during project construction when compared with the proposed project. As a result, this alternative would fulfill all of the project objectives to the same degree as the proposed project.

5.5 IDENTIFICATION OF ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires the identification of an Environmentally Superior Alternative among the proposed project and the alternatives evaluated in an EIR. State CEQA Guidelines Section 15126.6(e)(2) provides that, if the No Project Alternative is the Environmentally Superior Alternative, then the EIR shall also identify an Environmentally Superior Alternative among the other alternatives and the proposed project. The qualitative environmental effects of each alternative in relation to the proposed project are summarized in **Table 5.1**. As explained previously in Section 5.1, Introduction, of this chapter, the comparisons contained in **Table 5.1** and the subsequent discussion are provided for informational purposes only because the proposed project would not result in any significant and unavoidable impacts.

The No Project Alternative would have the least impact on the environment because it would require minimal construction, with the exception of the minor renovation of the existing buildings on the project site and would thereby avoid most of the proposed project's environmental impacts resulting from construction. However, the No Project Alternative cannot be the only Environmentally Superior Alternative. Therefore, according to Section 15126.6(e)(2) of the State CEQA Guidelines, because the No Project Alternative has been identified as the environmentally superior alternative, the EIR shall also identify the proposed project or one of the other alternatives as the Environmentally Superior Alternative.

With the exception of the No Project Alternative, the Deep Dynamic Compaction and Stone Columns Alternative is the Environmentally Superior Alternative. As shown in **Table 5.1**, Alternative 4 would reduce impacts to noise and vibration from "Less than Significant with Mitigation Incorporated" to "Less than Significant" and would have the least impact on noise and vibration compared to all other alternatives. The Deep Dynamic Compaction and Stone Columns Alternative would also meet all of the project objectives of the proposed project. Accordingly, it is determined that the Deep Dynamic Compaction and Stone Columns Alternative is the Environmentally Superior Alternative because it would meet all of the project's objectives and would result in reduced impacts to noise and vibration as compared to the proposed project.

Table 5.1: Comparison of the Environmental Impacts of the Proposed Project and Project Alternatives

Impact Area	Proposed Project Impact with Mitigation (if any)	Alternative 1: No Project Alternative	Alternative 2: Reduced Footprint Alternative	Alternative 3: No Refrigerated Warehouse Alternative	Alternative 4: Deep Dynamic Compaction and Stone Columns Alternative
Air Quality	Less than Significant	Less	Less	Less	Similar
Cultural Resources	Less than Significant[1]	Less[1]	Similar[1]	Similar [1]	Similar[1]
Energy	Less than Significant	Less	Less	Less	Similar
Geology and Soils	Less than Significant[1]	Less[1]	Similar[1]	Similar[1]	Similar[1]
Greenhouse Gas Emissions	Less than Significant	Less	Less	Less	Similar
Noise	Less than Significant[1]	Less[1]	Less[1]	Less[1]	Less
Transportation	Less than Significant	Less[1]	Less[1]	Less[1]	Similar[1]
Tribal Cultural Resources	Less than Significant[1]	Less[1]	Similar[1]	Similar[1]	Similar[1]

[1] Mitigation identified.

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6.0 OTHER CEQA CONSIDERATIONS

6.1 SUMMARY OF SIGNIFICANT UNAVOIDABLE IMPACTS

Section 15126.2(c) of the State CEQA Guidelines requires that an EIR describe any significant impacts that cannot be avoided. Specifically, Section 15126.2(c) states that an EIR shall:

> "Describe any significant impacts, including those which can be mitigated but not reduced to a level of insignificance. Where there are impacts that cannot be alleviated without imposing an alternative design, their implications and the reasons why the project is being proposed, notwithstanding their effect, should be described."

The Executive Summary of this document (Chapter 1.0) contains a detailed summary that identifies the proposed project's environmental impacts as compared to existing conditions, proposed mitigation measures, and the level of significance of any impacts after mitigation. Implementation of the proposed project would not result in any impacts that are considered significant, adverse, and unavoidable. All environmental issues analyzed in this Draft EIR were determined to result in less than significant impacts or can be reduced to less than significant levels with the incorporation of mitigation measures.

6.2 ENERGY IMPACTS

According to Section 15126.2(b) of the State CEQA Guidelines, "[i]f analysis of the project's energy use reveals that the project may result in significant environmental effects due to wasteful, inefficient, or unnecessary use of energy, or wasteful use of energy resources, the EIR shall mitigate that energy use."

As discussed in Section 4.3, Energy, of this Draft EIR, the proposed project would not result in significant impacts related to energy use. Energy (e.g., fuel) usage on the project site during construction would be temporary in nature and would be relatively small in comparison to the State's available energy sources. In addition, the net increase in electricity usage attributable to the proposed project would not represent a substantial demand on available electricity resources. Furthermore, automobiles and transportation-related energy use to and from the project site would be subject to fuel economy and efficiency standards applied throughout the State and fuel efficiency is expected to increase throughout the life of the project. Therefore, implementation of the proposed project would not result in a substantial increase in transportation-related energy uses. Neither construction nor operation of the proposed project would result in the wasteful, inefficient, or unnecessary consumption of energy resources. Therefore, no mitigation is required.

6.3 GROWTH-INDUCING IMPACTS

State CEQA Guidelines Sections 15126(d) and 15126.2(e) require that an EIR analyze growth-inducing impacts and discuss the ways in which a proposed project could foster economic or population growth or construction of additional housing, either directly or indirectly, in the surrounding environment. State CEQA Guidelines Section 15126.2(d) also requires a discussion of the characteristics of projects that may encourage and facilitate other activities that could

significantly affect the environment, either individually or cumulatively. To address these issues, potential growth-inducing effects were examined through analysis of the following questions:

- Would the project remove obstacles to, or otherwise foster, population growth (e.g., through the construction or extension of major infrastructure facilities that do not presently exist in the project area, or through changes in existing regulations pertaining to land development)?

- Would the project foster economic growth?

- Would approval of the project involve some characteristic that may encourage and facilitate other activities that could significantly affect the environment?

Growth-inducing effects are not to be construed as necessarily beneficial, detrimental, or of little significance to the environment (State CEQA Guidelines Section 15126.2(e)). This issue is presented to provide additional information on ways in which the proposed project could contribute to significant changes in the environment beyond the direct consequences of developing the proposed land uses as described in earlier sections of this Draft EIR.

The area surrounding the project site is highly urbanized and developed with a variety of industrial, commercial, office, and warehouse land uses. The proposed project will require water, sewer, drainage, electricity, and natural gas lines. However, the project site is currently developed and located in a highly urbanized environment where these facilities already exist in place. It is not anticipated that the proposed project would require substantial utility infrastructure improvements.

The construction of the proposed project is anticipated to generate a number of construction-related jobs. However, as discussed in Section 4.14 of the Initial Study prepared for the proposed project (see **Appendix B)**, it is unlikely that a substantial number of employees would need to be relocated from outside the region to meet the need for employees resulting from implementation of the proposed project. In addition, the proposed project would not provide or remove housing on the project site. it is unlikely that the employment offered by the proposed project would cause people to move or relocate to the area solely for the purpose of being close to the project site. Accordingly, the proposed project would not induce either short- nor long-term population growth.

In its existing condition, the project site is developed with an underutilized five-story office building. The project site currently does not generate revenue for the City. The proposed project would provide a new source of property tax revenues to the City, thereby increasing the local tax base. Therefore, the proposed project would foster economic growth.

The proposed project includes the development of a light industrial facility. The proposed project would require an amendment to the McDonnell Specific Plan to allow light industrial uses in the eastern portion of Planning Area 1, and removal of the maximum developable area requirement while retaining the 1.0:1 FAR to maintain consistency with the General Plan. This amendment would not allow for residential uses, or add any permanent residents to the project site. Therefore, the project would not directly increase the City's population beyond existing levels. The proposed Specific Plan Amendment (SPA) would not cause a future increase in density or land use. Accordingly, the proposed project would not have any growth-inducing impacts.

6.4 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

State CEQA Guidelines Section 15126.2(d) requires an EIR to consider and discuss significant irreversible changes that would be caused by implementation of a proposed project. The State CEQA Guidelines specify that the use of nonrenewable resources during the initial and continued phases of a project should be discussed because a large commitment of such resources makes removal or non-use thereafter unlikely. Primary and secondary impacts (e.g., a highway improvement that provides access to a previously inaccessible area) should also be discussed because such changes generally commit future generations to similar uses. Irreversible damage can also result from environmental accidents associated with a project and should be discussed.

The type of development associated with the proposed project would consume limited, slowly renewable, and nonrenewable resources. This consumption would occur during construction of the proposed project and would continue throughout the proposed project's operational lifetime. The development of the proposed project would require a commitment of resources that would include (1) building materials, (2) fuel and operational materials/resources, and (3) the transportation of goods and people to and from the project site.

Construction of the proposed project would require consumption of resources that are not replenishable or that may renew so slowly as to be considered nonrenewable. These resources would include certain types of lumber and other forest products (e.g., hardwood lumber), aggregate materials used in concrete and asphalt (e.g., sand, gravel, and stone), metals (e.g., steel, copper, and lead), petrochemical construction materials (e.g., plastics), and water. Fossil fuels (e.g., gasoline and oil) would also be consumed in the use of construction vehicles and equipment. Water, which is a limited, slowly renewable resource, would also be consumed during construction of the proposed project. Furthermore, the use of construction vehicles and equipment would require the consumption of nonrenewable fossil fuels such as natural gas and oil. As with other resources consumed during construction, the consumption of nonrenewable fossil fuels for energy use would occur on a temporary basis during construction of the proposed project.

Energy use consumed by the proposed project would be associated with natural gas use, electricity consumption, and fuel used for vehicle and truck trips associated with the project. Energy resources would be used for heating and cooling buildings, transportation within the project site, and building lighting. Although there would be an overall increase in energy demand associated with the proposed project, the project would be required to adhere to all federal, State, and local requirements for energy efficiency, including current Title 24 and California Green Building Standards Code (CALGreen Code) standards that establish minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting, which would reduce energy usage. In addition, proposed new development would be constructed using energy efficient modern building materials and construction practices, and the proposed project also would use new modern appliances and equipment, in accordance with the Appliance Efficiency Regulations (Title 20, California Code of Regulations (CCR) Sections 1601 through 1608). The expected energy consumption during construction and operation of the proposed project would be consistent with typical usage rates for industrial use.

In summary, construction and operation of the proposed project would commit the use of slowly renewable and nonrenewable resources and would limit the availability of these resources on the project site for future generations or for other uses during the life of the proposed project. However, the continued use of such resources during operation would be on a relatively small scale and consistent with regional and local urban design and development goals for the area. As a result, the use of nonrenewable resources in this manner would not result in significant irreversible changes to the environment under the proposed project.

7.0 MITIGATION MONITORING AND REPORTING PROGRAM

7.1 MITIGATION MONITORING REQUIREMENTS

California Public Resources Code (PRC) Section 21081.6, which is part of the California Environmental Quality Act (CEQA) statute, mandates that the following requirements shall apply to all reporting or mitigation monitoring programs:

- The public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation. For those changes that have been required or incorporated into the project at the request of a responsible agency or a public agency having jurisdiction by law over natural resources affected by the project, that agency shall, if so requested by the lead agency or a responsible agency, prepare and submit a proposed reporting or monitoring program.

- The lead agency shall specify the location and custodian of the documents or other materials that constitute the record of proceedings upon which its decision is based.

- The lead agency shall provide measures to mitigate or avoid potentially significant effects on the environment that are fully enforceable through permit conditions, agreements, or other measures. Conditions of project approval may be set forth in referenced documents that address required mitigation measures or, in the case of the adoption of a plan, policy, regulation, or other project, by incorporating the mitigation measures into the plan, policy, regulation, or project design.

- Prior to the close of the public review period for a draft Environmental Impact Report (EIR) or Mitigated Negative Declaration (MND), a responsible agency, or a public agency having jurisdiction over natural resources affected by the project, shall either (1) submit to the lead agency complete and detailed performance objectives for mitigation measures that would address the significant effects on the environment identified by the responsible agency or agency having jurisdiction over natural resources affected by the project, or (2) refer the lead agency to appropriate, readily available guidelines or reference documents. Any mitigation measures submitted to a lead agency by a responsible agency or an agency having jurisdiction over natural resources affected by the project shall be limited to measures that mitigate impacts to resources that are subject to the statutory authority of, and definitions applicable to, that agency. Compliance or noncompliance with that requirement by a responsible agency or agency having jurisdiction over natural resources affected by a project shall not limit the authority of the responsible agency or agency having jurisdiction over natural resources affected by a project, or the authority of the lead agency, to approve, condition, or deny projects as provided by this division or any other provision of law.

7.2 MITIGATION MONITORING PROCEDURES

The mitigation monitoring and reporting program for the proposed 5665 Plaza Drive Project (proposed project) has been prepared in compliance with PRC Section 21081.6. It describes the requirements and procedures to be followed by the City of Cypress, as the Lead Agency, to ensure that all mitigation measures adopted as part of the proposed project will be carried out as described in this Initial Study.

Table 7.1 sets forth the proposed mitigation monitoring and reporting program. It lists each of the mitigation measures specified in this Initial Study and identifies the party or parties responsible for implementation and monitoring of each measure.

Table 7.1: Mitigation Monitoring and Reporting Program

Regulatory Compliance Measures and Mitigation Measures	Monitoring Milestone	Responsible Party Responsible for Monitoring	Verification of Compliance		
			Initials	Date	Remarks
4.4: Biological Resources					
Regulatory Compliance Measure BIO-1 **Nesting Bird Survey and Avoidance.** If vegetation removal, construction, or grading activities are planned to occur within the active nesting bird season (February 1 through August 31), the City of Cypress, or designee, shall confirm that the Applicant has retained a qualified biologist who shall conduct a preconstruction nesting bird survey no more than 3 days prior to the start of such activities. The nesting bird survey shall include the work area and areas adjacent to the site (within 500 feet, as feasible) that could potentially be affected by project-related activities such as noise, vibration, increased human activity, and dust, etc. For any active nest(s) identified, the qualified biologist shall establish an appropriate buffer zone around the active nest(s). The appropriate buffer shall be determined by the qualified biologist based on species, location, and the nature of the proposed activities. Project activities shall be avoided within the buffer zone until the nest is deemed no longer active, as determined by the qualified biologist.	No more than three days prior to commencement of grading activities	Applicant and City of Cypress Community Development Director, or designee			
4.5: Cultural Resources					
Mitigation Measure CUL-1 **Unknown Archaeological Resources.** In the event that archaeological resources are discovered during excavation, grading, or construction activities, work shall cease within 50 feet of the find until a qualified archaeologist from the Orange County List of Qualified Archaeologists has evaluated the find in accordance with federal, State, and local guidelines to determine whether the find constitutes a "unique archaeological resource," as defined in Section 21083.2(g) of the California Public Resources Code (PRC). The Applicant and its construction contractor shall not collect or move any archaeological materials and associated materials. Construction activity may continue unimpeded on other portions of the project site. Any found deposits shall be treated in accordance with federal, State and local guidelines,	During construction activities	Applicant and/or Construction Supervisor/City of Cypress Director of Community Development Department, or designee			

Table 7.1: Mitigation Monitoring and Reporting Program

Regulatory Compliance Measures and Mitigation Measures	Monitoring Milestone	Responsible Party Responsible for Monitoring	Verification of Compliance		
			Initials	Date	Remarks
including those set forth in PRC Section 21083.2. Prior to commencement of grading activities, the Director of the City of Cypress (City) Community Development Department, or designee, shall verify that all project grading and construction plans include specific requirements regarding California PRC (Section 21083.2[g]) and the treatment of archaeological resources as specified above.					
Regulatory Compliance Measure CUL-1 **Human Remains.** In the event that human remains are encountered on the project site, work within 50 feet of the discovery shall be redirected and the County Coroner notified immediately consistent with the requirements of California Code of Regulations (CCR) Section 15064.5(e). State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code (PRC) Section 5097.98. If the remains are determined to be Native American, the County Coroner shall notify the Native American Heritage Commission (NAHC), which shall determine and notify a Most Likely Descendant (MLD). With the permission of the property owner, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD may recommend scientific removal and non-destructive analysis of human remains and items associated with Native American burials. Consistent with CCR Section 15064.5(d), if the remains are determined to be Native American and an MLD is notified, the City of Cypress shall consult with the MLD as identified by the NAHC to develop an agreement for treatment and disposition of the remains. Prior to the issuance of grading permits, the Director of the City of Cypress Community Development Department, or designee, shall verify that all grading plans specify the requirements of CCR Section 15064.5(e), State Health and Safety Code Section 7050.5, and PRC Section 5097.98, as stated above.	During construction activities	Construction Supervisor/Applicant			

Table 7.1: Mitigation Monitoring and Reporting Program

Regulatory Compliance Measures and Mitigation Measures	Monitoring Milestone	Responsible Party Responsible for Monitoring	Verification of Compliance		
			Initials	Date	Remarks
4.6: Energy					
Regulatory Compliance Measure EN-1 Limit Idling Time. The Applicant and construction contractor would be required to comply with applicable idling regulations for on-road vehicles during project construction and operation, which require truck drivers to turn off their engines within 5 minutes of idling.	Prior to issuance of a building permit	Applicant and City of Cypress Community Development Director, or designee			
4.7: Geology and Soils					
Regulatory Compliance Measure GEO-1 **Compliance with Seismic and Building Standards in the Building Code.** Prior to issuance of the first building permit for the proposed buildings, the City of Cypress (City) Engineer, Building Official, or their designee, and the project soils engineer shall review the building plans to verify that the structural design conforms to the requirements of the City's latest adopted edition of the California Building Standards Code. Structures and walls shall be designed in accordance with applicable sections of the City's Building Code.	Prior to issuance of building permits	Applicant and City of Cypress Engineer, Building official, or designee			
Mitigation Measure GEO-1 **Implementation of Geotechnical Evaluation Recommendations.** The Applicant's construction contractor shall implement the recommendations of the Geotechnical Evaluation prepared for the proposed project, as applicable, to the satisfaction of the City of Cypress' (City) Building Official, or designee. The City's Building Official, or designee, shall confirm recommendations have been implemented into the design and construction of the proposed project prior to the issuance of a building permit.	Prior to issuance of building permits	Applicant and City of Cypress Building official, or designee			
Mitigation Measure GEO-2 **Procedures for Unexpected Paleontological Resources Discoveries.** In the event that paleontological resources are encountered, work in the immediate area of the discovery shall be halted and the Applicant shall retain a professional Paleontologist	During ground-disturbing activities	Applicant and/or Construction Supervisor/City of Cypress Director of Community Development			

Table 7.1: Mitigation Monitoring and Reporting Program

Regulatory Compliance Measures and Mitigation Measures	Monitoring Milestone	Responsible Party Responsible for Monitoring	Verification of Compliance		
			Initials	Date	Remarks
who meets the qualifications established by the Society of Vertebrate Paleontology to assess the discovery. The qualified, professional Paleontologist shall make recommendations regarding the treatment and disposition of the discovered resources, as well as the need for subsequent paleontological mitigation, which may include, but not be limited to, paleontological monitoring, collection of observed resources, preservation, stabilization and identification of collected resources, curation of resources into a museum repository, and preparation of a monitoring report of findings. The City of Cypress shall ensure that the recommendations from the qualified, professional Paleontologist shall be followed by the Applicant.		Department, or designee			
4.10: Hydrology and Water Quality					
Regulatory Compliance Measure HYD-1 Construction General Permit. Prior to commencement of construction activities, the Applicant shall obtain coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit), NPDES No. CAS000002, Order No. 2022-0057-DWQ, National Pollutant Discharge Elimination System (NPDES) No. CAS000002. This shall include submission of Permit Registration Documents (PRDs), including permit application fees, a Notice of Intent (NOI), a risk assessment, a site plan, a Stormwater Pollution Prevention Plan (SWPPP), a signed certification statement, and any other compliance-related documents required by the permit, to the State Water Resources Control Board via the Stormwater Multiple Application and Report Tracking System (SMARTS). Construction activities shall not commence until a Waste Discharge Identification Number (WDID) is obtained for the project from the SMARTS and provided to the Director of the City of Cypress Community Development Department, or designee, to demonstrate that coverage under the Construction General Permit has been obtained. Project	Prior to commencement of construction activities	Applicant and/or Construction Supervisor/City of Cypress Director of Community Development Department, or designee			

Table 7.1: Mitigation Monitoring and Reporting Program

Regulatory Compliance Measures and Mitigation Measures	Monitoring Milestone	Responsible Party Responsible for Monitoring	Verification of Compliance		
			Initials	Date	Remarks
construction shall comply with all applicable requirements specified in the Construction General Permit, including, but not limited to, preparation of a SWPPP and implementation of construction site best management practices (BMPs) to address all construction-related activities, equipment, and materials that have the potential to impact water quality for the appropriate risk level identified for the project. The SWPPP shall identify the sources of pollutants that may affect the quality of stormwater and shall include BMPs (e.g., Sediment Control, Erosion Control, and Good Housekeeping BMPs) to control the pollutants in stormwater runoff. Construction Site BMPs shall also conform to the requirements specified in the latest edition of the Orange County Stormwater Program Construction Runoff Guidance Manual for Contractors, Project Owners, and Developers to control and minimize the impacts of construction and construction-related activities, materials, and pollutants on the watershed. Upon completion of construction activities and stabilization of the project site, a Notice of Termination shall be submitted via SMARTS.					
Regulatory Compliance Measure HYD-2 If groundwater dewatering is required during construction or excavation activities and the dewatered groundwater is discharged to the sanitary sewer system, the Applicant shall obtain a discharge permit from the Director of the City of Cypress Public Works Department. If the dewatered groundwater is discharged to the storm drain system, the Applicant shall obtain coverage under the *General Waste Discharge Requirements for Discharges to Surface Waters that Pose an Insignificant (De Minimis) Threat to Water Quality (*Order No. R8-2020-0006, NPDES No. CAG998001), which covers discharges to surface waters that pose an insignificant (de minimis) threat to water quality within. This shall include submission of a Notice of Intent for coverage under the permit to the RWQCB at least 45 days prior to the start of dewatering. The Applicant shall provide the	Prior to commencement of construction activities	Applicant and/or Construction Supervisor/City of Cypress Director of Public Works, or designee			

Table 7.1: Mitigation Monitoring and Reporting Program

Regulatory Compliance Measures and Mitigation Measures	Monitoring Milestone	Responsible Party Responsible for Monitoring	Verification of Compliance		
			Initials	Date	Remarks
Waste Discharge Identification Number (WDID) to the Director of the City's Public Works Department, or designee, to demonstrate proof of coverage under the *De Minimis* Permit. Groundwater dewatering shall not be initiated until a WDID is received from the Santa Ana Regional Water Quality Control Board (RWQCB) and is provided to the Director of the City's Public Works Department, or designee. Groundwater dewatering activities shall comply with all applicable provisions in the permit, including water sampling, analysis, treatment (if required), and reporting of dewatering-related discharges. Upon completion of groundwater dewatering activities, a Notice of Termination shall be submitted to the Santa Ana RWQCB.					
Regulatory Compliance Measure HYD-3 **Water Quality Management Plan.** Prior to the issuance of grading or building permits, the Applicant shall submit a Final Water Quality Management Plan (WQMP) to the City of Cypress Engineer, or designee, for review and approval in compliance with the requirements of the *Waste Discharge Requirements for the County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County within the Santa Ana Region Areawide Urban Storm Water Runoff Orange County (Order No. R8-2009-0030, NPDES No. CAS618030, as amended by Order No. R8-2010-0062) (North Orange County MS4 Permit)*. The Final WQMP shall be prepared consistent with the requirements of the *Technical Guidance Document for Water Quality Management Plans* (December 2013) and the Water Quality Management Plan template, or subsequent guidance manuals. The Final WQMP shall specify the BMPs to be incorporated into the project design to target pollutants of concern in runoff from the project site. The City shall ensure that the BMPs specified in the Final WQMP are incorporated into the final project design.	Prior to issuance of grading or building permits	Applicant and City of Cypress Engineer, or designee			

Table 7.1: Mitigation Monitoring and Reporting Program

Regulatory Compliance Measures and Mitigation Measures	Monitoring Milestone	Responsible Party Responsible for Monitoring	Verification of Compliance		
			Initials	Date	Remarks
Regulatory Compliance Measure HYD-4 Final Hydrology and Hydraulic Analysis. The Applicant shall submit a Final Hydrology Study to the City of Cypress Director of Public Works, or his/her designee, for review and approval prior to issuance of grading and building permits. The Final Hydrology Study shall be prepared consistent with the requirements of the *Orange County Hydrology Manual* (Orange County Environment Agency 1986) and *Orange County Hydrology Manual Addendum No. 1* (Orange County Environment Agency 1996), or subsequent guidance manuals. The Final Hydrology Study shall demonstrate that the on-site drainage facilities and post-project Best Management Practices (BMPs) (e.g., Modular Wetland Systems) are designed in compliance with the requirements of the *Waste Discharge Requirements for the County of Orange, Orange County Flood Control District, and the Incorporated Cities of Orange County within the Santa Ana Region Areawide Urban Storm Water Runoff Orange County (Order No. R8-2009-0030, NPDES No. CAS618030, as amended by Order No. R8-2010-0062) (North Orange County MS4 Permit)*. The Final Hydrology Study shall also demonstrate that the on-site drainage facilities and post-construction BMPs are adequately sized to accommodate stormwater runoff from the design storm so that post-development peak flow rates for the 10-year 24-hour frequency storm, 25-year 24-hour frequency storm, and 100-year 24-hour frequency storm does not exceed the pre-development flow rate. The City Director of Public Works, or designee, shall ensure that the drainage facilities specified in the Final Hydrology Study are incorporated into the final project design.	Prior to issuance of grading or building permits	Applicant and City of Cypress Director of Public Works, or designee			

Table 7.1: Mitigation Monitoring and Reporting Program

Regulatory Compliance Measures and Mitigation Measures	Monitoring Milestone	Responsible Party Responsible for Monitoring	Verification of Compliance		
			Initials	Date	Remarks
4.13: Noise					
Regulatory Compliance Measure NOI-1 **Construction Noise and Vibration.** Prior to issuance of grading permits, the City of Cypress (City) Director of Community Development Department, or designee, shall verify that grading and construction plans include the following requirements: • Ensure that the greatest distance between noise sources and sensitive receptors during construction activities has been achieved. • Construction equipment, fixed or mobile, shall be equipped with properly operating and maintained noise mufflers consistent with manufacturers' standards. • Construction staging areas shall be located away from off-site sensitive uses during the later phases of project development. • The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site whenever feasible. • The construction contractor shall use on-site electrical sources to power equipment rather than diesel generators where feasible. • A sign, legible at a distance of 50 feet, shall also be posted at the construction site perimeter. All notices and the signs shall indicate the dates and duration of ground improvement activities, as well as provide a telephone number for the "noise disturbance coordinator." • A "noise disturbance coordinator" shall be established. The disturbance coordinator shall be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall be required to implement reasonable measures to reduce noise levels. All signs posted at the construction site shall list the telephone number for the disturbance coordinator.	Prior to issuance of grading permits	Applicant and/or Construction Supervisor/City of Cypress Director of Community Development Department, or designee			

Table 7.1: Mitigation Monitoring and Reporting Program

Regulatory Compliance Measures and Mitigation Measures	Monitoring Milestone	Responsible Party Responsible for Monitoring	Verification of Compliance		
			Initials	Date	Remarks
Mitigation Measure NOI-1 **Construction Vibration Monitoring Plan**. Due to the close proximity to surrounding structures, the City of Cypress (City) Director of Community Development, or designee, shall verify prior to issuance of demolition or grading permits, that the approved plans require that the construction contractor implement the following mitigation measures during project construction activities in the event that the use of heavy equipment is necessary within 25 feet (ft) of surrounding structures or when deep dynamic compaction (DDC) construction activity takes places within 80 ft of surrounding structures: • Notification to nearby businesses detailing the schedule and duration of DDC activities. • Structures that are located within 25 ft of heavy construction activities and within 80 ft of DDC construction activity that have the potential to be affected by ground-borne vibration shall be identified. This task shall be conducted by a qualified structural engineer as approved by the City's Director of Community Development, or designee. • The Applicant's construction contractor shall develop a vibration monitoring and construction contingency plan for approval by the City's Director of Community Development, or designee, to identify appropriate locations in the vicinity of nearby structures where monitoring would be conducted; set up a vibration monitoring schedule; define structure-specific maximum vibration limits based on building inspections; contain provisions to conduct photo, elevation, and crack surveys to document before and after construction conditions at those structures. The plan shall identify construction contingencies that would be implemented if vibration levels approach the established vibration limits at a particular location. Potential contingencies may include one or more of the following:	Prior to issuance of demolition or grading permits	Applicant and/or Construction Supervisor/City of Cypress Director of Community Development Department, or designee			

Table 7.1: Mitigation Monitoring and Reporting Program

Regulatory Compliance Measures and Mitigation Measures	Monitoring Milestone	Responsible Party Responsible for Monitoring	Verification of Compliance		
			Initials	Date	Remarks
○ Lowering the height of the compaction weight; ○ Using a lighter compaction weight; or ○ Any other alternate method that is safe and appropriate, as determined by the project geotechnical consultant, in consultation with the City's Director of Community Development (such as utilizing geopier stabilization instead of DDC). [1] • At a minimum, vibration during initial site preparation activities at the locations described above shall be monitored. The monitoring results may indicate the need for more or less intensive measurements. When vibration levels approach the applicable limits established in the vibration monitoring and construction contingency plan, construction shall be suspended and the appropriate mitigation measures identified in the construction contingency plan shall be implemented to reduce vibration levels below thresholds.					
4.17: Transportation					
Mitigation Measure TRA-1: Truck Access & Routing Plan and Truck Signage and Striping Plan. The Applicant shall submit a Truck Access and Routing Plan to accommodate the circulation of trucks on site. Additionally, the Applicant shall prepare a Signage and Striping Plan, consistent with the provisions of the California Manual on Uniform Traffic Control Devices (CA MUTCD), that directs heavy trucks to the most appropriate access point. The Public Works Director of the City of Cypress, or designee, shall review and approve the Truck Access and Routing Plan and Signage and Striping Plan and confirm they have been incorporated into the project plans prior to the issuance of a building permit.	Prior to issuance of building permits	Applicant and City of Cypress Public Works Director, or designee			

[1] Utilizing a geopier stabilization system method is estimated to result in vibration levels of 0.22 at approximately 15 feet, which would ensure that vibration from construction within 10 feet remains lower than the threshold of 0.5 in/sec PPV for building damage.

Table 7.1: Mitigation Monitoring and Reporting Program

Regulatory Compliance Measures and Mitigation Measures	Monitoring Milestone	Responsible Party Responsible for Monitoring	Verification of Compliance		
			Initials	Date	Remarks
4.18: Tribal Cultural Resources					
Mitigation Measure TRC-1: Retain a Native American Monitor Prior to Commencement of Ground-Disturbing Activities. The project Applicant/lead agency shall retain a Native American Monitor from or approved by the Gabrieleño Band of Mission Indians – Kizh Nation (Kizh Nation). The monitor shall be retained prior to the commencement of any "ground-disturbing activity" for the subject project at all project locations (i.e., both on-site and any off-site locations that are included in the project description/ definition and/or required in connection with the project, such as public improvement work). "Ground-disturbing activity" shall include, but is not limited to, demolition, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching. A copy of the executed monitoring agreement shall be submitted to the lead agency prior to the earlier of the commencement of any ground-disturbing activity, or the issuance of any permit necessary to commence a ground-disturbing activity. The monitor will complete daily monitoring logs that will provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground- disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs will identify and describe any discovered TCRs, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., (collectively, tribal cultural resources, or "TCR"), as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs will be provided to the project Applicant/lead agency upon written request to the Tribe. On-site tribal monitoring shall conclude upon the latter of the following (1) written confirmation to the Kizh Nation from a designated point of contact for the project Applicant/lead agency	Prior to ground disturbing activities	Applicant and City of Cypress Engineer, or designee			

Table 7.1: Mitigation Monitoring and Reporting Program

Regulatory Compliance Measures and Mitigation Measures	Monitoring Milestone	Responsible Party Responsible for Monitoring	Verification of Compliance		
			Initials	Date	Remarks
that all ground-disturbing activities and phases that may involve ground-disturbing activities on the project site or in connection with the project are complete; or (2) a determination and written notification by the Kizh Nation to the project Applicant/lead agency that no future, planned construction activity and/or development/construction phase at the project site possesses the potential to impact Kizh Nation TCRs. Upon discovery of any TCRs, all construction activities in the immediate vicinity of the discovery shall cease (i.e., not less than the surrounding 50 feet) and shall not resume until the discovered TCR has been fully assessed by the Kizh Nation monitor and/or Kizh Nation archaeologist. The Kizh Nation will recover and retain all discovered TCRs in the form and/or manner the Tribe deems appropriate, in the Tribe's sole discretion, and for any purpose the Tribe deems appropriate, including for educational, cultural and/or historic purposes.					
Mitigation Measure TRC-2: Unanticipated Discovery of Human Remains and Associated Funerary Objects. Native American human remains are defined in Public Resources Code 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in Public Resources Code Section 5097.98, are also to be treated according to this statute. If Native American human remains and/or grave goods discovered or recognized on the project site, then all construction activities shall immediately cease. Health and Safety Code Section 7050.5 dictates that any discoveries of human skeletal material shall be immediately reported to the County Coroner and all ground-disturbing activities shall immediately halt and shall remain halted until the coroner has determined the nature of the remains. If the coroner recognizes the human remains to be those of a Native American or has reason to believe they are Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission, and Public Resources Code Section	During construction activities	Applicant and/or Construction Supervisor/City of Cypress Director of Community Development Department, or designee			

Table 7.1: Mitigation Monitoring and Reporting Program

Regulatory Compliance Measures and Mitigation Measures	Monitoring Milestone	Responsible Party Responsible for Monitoring	Verification of Compliance		
			Initials	Date	Remarks
5097.98 shall be followed. Human remains and grave/burial goods shall be treated alike per California Public Resources Code section 5097.98(d)(1) and (2). Construction activities may resume in other parts of the project site at a minimum of 200 feet away from discovered human remains and/or burial goods, if the Kizh Nation determines in its sole discretion that resuming construction activities at that distance is acceptable and provides the project manager express consent of that determination (along with any other mitigation measures the Kizh Nation monitor and/or archaeologist deems necessary). (CEQA Guidelines Section 15064.5(f).) Preservation in place (i.e., avoidance) is the preferred manner of treatment for discovered human remains and/or burial goods. Any historic archaeological material that is not Native American in origin (non-TCR) shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the archaeological material, it shall be offered to a local school or historical society in the area for educational purposes. Any discovery of human remains/burial goods shall be kept confidential to prevent further disturbance.					
Mitigation Measure TCR-3 Procedures for Burials and Funerary Remains. As the Most Likely Descendant ("MLD"), the Koo-nas-gna Burial Policy shall be implemented. To the Tribe, the term "human remains" encompasses more than human bones. In ancient as well as historic times, Tribal Traditions included, but were not limited to, the preparation of the soil for burial, the burial of funerary objects with the deceased, and the ceremonial burning of human remains. If the discovery of human remains includes four or more burials, the discovery location shall be treated as a cemetery and a	During project construction	Applicant and/or Construction Supervisor/City of Cypress Director of Community Development Department, or designee			

Table 7.1: Mitigation Monitoring and Reporting Program

Regulatory Compliance Measures and Mitigation Measures	Monitoring Milestone	Responsible Party Responsible for Monitoring	Verification of Compliance		
			Initials	Date	Remarks
separate treatment plan shall be created. The prepared soil and cremation soils are to be treated in the same manner as bone fragments that remain intact. Associated funerary objects are objects that, as part of the death rite or ceremony of a culture, are reasonably believed to have been placed with individual human remains either at the time of death or later; other items made exclusively for burial purposes or to contain human remains can also be considered as associated funerary objects. Cremations will either be removed in bulk or by means as necessary to ensure complete recovery of all sacred materials. In the case where discovered human remains cannot be fully documented and recovered on the same day, the remains will be covered with muslin cloth and a steel plate that can be moved by heavy equipment placed over the excavation opening to protect the remains. If this type of steel plate is not available, a 24-hour guard should be posted outside of working hours. The Tribe will make every effort to recommend diverting the project and keeping the remains in situ and protected. If the project cannot be diverted, it may be determined that burials will be removed. In the event preservation in place is not possible despite good faith efforts by the project Applicant/developer and/or landowner, before ground-disturbing activities may resume on the project site, the landowner shall arrange a designated site location within the footprint of the project for the respectful reburial of the human remains and/or ceremonial objects. Each occurrence of human remains and associated funerary objects will be stored using opaque cloth bags. All human remains, funerary objects, sacred objects and objects of cultural patrimony will be removed to a secure container on site if possible. These items should be retained and reburied within six months of recovery. The site of reburial/repatriation shall be on the project site but at a location agreed upon between the Tribe					

Table 7.1: Mitigation Monitoring and Reporting Program

Regulatory Compliance Measures and Mitigation Measures	Monitoring Milestone	Responsible Party Responsible for Monitoring	Verification of Compliance		
			Initials	Date	Remarks
and the landowner at a site to be protected in perpetuity. There shall be no publicity regarding any cultural materials recovered. The Tribe will work closely with the project's qualified archaeologist to ensure that the excavation is treated carefully, ethically and respectfully. If data recovery is approved by the Tribe, documentation shall be prepared and shall include (at a minimum) detailed descriptive notes and sketches. All data recovery data recovery-related forms of documentation shall be approved in advance by the Tribe. If any data recovery is performed, once complete, a final report shall be submitted to the Tribe and the NAHC. The Tribe does NOT authorize any scientific study or the utilization of any invasive and/or destructive diagnostics on human remains.					

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8.0 LIST OF PREPARERS AND PERSONS CONSULTED

8.1 CITY OF CYPRESS

The following individuals from the City of Cypress were involved in the preparation of this EIR:

- Alicia Velasco, Director of Planning/Community Development

8.2 EIR PREPARERS

The following individuals were involved in the preparation of this Draft EIR. The nature of their involvement is summarized below.

8.2.1 LSA

The following individuals were involved in the preparation of this Draft EIR:

- Ryan Bensley, AICP, Principal in Charge
- Chris Jones, AICP, Project Manager
- Lynnea Palecki, Assistant, Environmental Planner
- Amy Fischer, Principal/Air Quality, Noise and Global Climate Change Specialist
- Bianca Martinez, Air Quality Specialist
- Ken Wilhelm, Principal/Transportation
- Debmalya Sinha, Principal/Transportation
- JT Stephens, Principal/Noise
- Matt Phillips, Graphics Technician
- Jason Thomas Graphics & GIS Specialist
- Mitchell Alexander, GIS Specialist
- Jessie Quigley, GIS Specialist
- Lauren Johnson, Senior Technical Editor
- Chantik Virgil, Senior Word Processor

8.3 TECHNICAL REPORT PREPARERS

The following individuals were involved in the preparation of the technical reports in support of this Draft EIR. The nature of their involvement is summarized below.

8.3.1 G3Soil Works

The following individuals were involved in the preparation of the *Geotechnical Investigation and Report Update, Proposed Goodman Commerce Center, 5665 and 5757 Plaza Drive, Cypress, California* (May 4, 2022) and the *Updated Earthwork Considerations Goodman Commerce Center Cypress Building 3, 5665 Plaza Drive Cypress, California* (August 25, 2023):

- Daniel J. Morikawa, P.E., Director of Engineering
- Steve E. Stricklen, CEO / Principal Geotechnical Engineer
- Erik C. Haaker, P.G., C.E.G. Senior Engineering Geologist

8.3.2 Stantec Consulting Services Inc.

The following individuals were involved in the preparation of the *Phase I Environmental Site Assessment – 5665 Plaza Drive Cypress, California* (September 3, 2021)*:*

- Alicia Jansen, Associate Scientist
- Brian Viggiano, PG, Senior Geologist
- Kevin Miskin, P.E. Senior Principal Engineer

8.3.3 Pacific Environmental Company

The following individuals were involved in the preparation of the *Asbestos Inspection Report 5665 Plaza Drive Cypress, California, 90630* (August 10, 2021):

- Michael Lyssy, Certified Asbestos Consultant

8.3.4 PBLA Engineering, Inc.

The following individuals were involved in the preparation of the *Water Quality Management Plan (PWQMP) GCC Cypress Building 3* (September 20, 2023):

- Steven D. Levisee, Engineer

8.3.5 Urban Crossroads

The following individuals were involved in the preparation of the Goodman Commerce Center *Traffic Impact Analysis* (November 2023):

- Aric Evatt, PTP, Principal
- Charlene So, P.E., Senior Associate

8.4 PROJECT APPLICANT/DEVELOPER

8.4.1 Goodman North America Management, LLC

The project Applicant/Developer was consulted during the preparation of this Draft EIR:

- Blair Dahl, Vice President Entitlements & Construction, Southwest Region, Goodman

8.5 PERSONS CONSULTED

8.5.1 Gabrieleño Band of Mission Indians – Kizh Nation

The following individuals were consulted during the preparation of this Draft EIR:

- Andrew Salas, Chairman

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