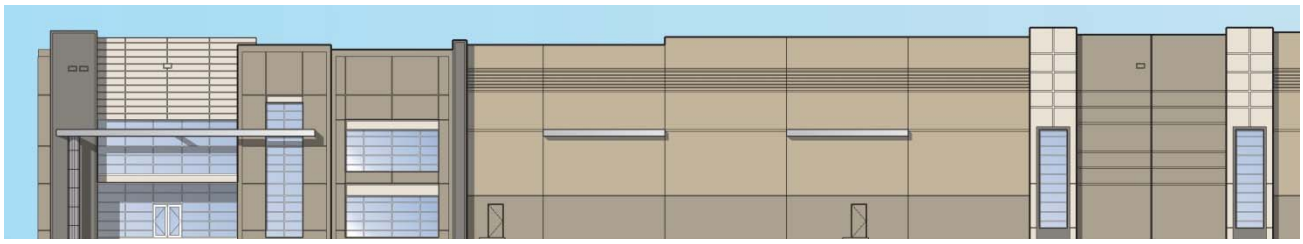
Draft Environmental Impact Report No. 546
SCH No. 2015081081

Knox Business Park Buildings D and E

Riverside County, California



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Public Review: May 19 - July 6, 2017

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Lead Agency Discretionary Permits
General Plan Amendment Nos. 1151 and 1152
Change of Zone Nos. 7872 and 7873
Tentative Parcel Map Nos. 36950 and 36962
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ACRONYMS, ABBREVIATIONS, AND UNITS OF MEASUREMENT

Acronym	Definition
§	Section
<	less than
>	greater than
≥	greater than or equal to
A.D.	Anno Domini
a.m.	Ante Meridiem (between the hours of midnight and noon)
AB	Assembly Bill
ABOP	Antifreeze, batteries, oil and paint
ACM	Asbestos-containing Material
ACOE	Army Corps of Engineers
ADP	Area Drainage Plan
ADT	Average Daily Traffic
AFY	acre feet a year
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Compatibility Plan
AMSL	Above Mean Sea Level
APS	Alternative Planning Strategy
APN	Assessor Parcel Number
AQMP	Air Quality Management Plan
ARB/IRP	March Air Reserve Base/Inland Port Airport
Av.	Avenue
BAAQMD	Bay Area Air Quality Management District
BAU	Business-As-Usual
Bl.	Boulevard
BLM	Bureau of Land Management
BMPs	Best Management Practices
C&D	Construction and Demolition
C_2F_6	Hexaflouroethane
C_2H_6	Ethane
CF_4	Tetraflouromethane
CF_3CH_2F	Tetrafluoroethane
CH_4	Methane
CH_3CHF_2	Difluorethane
CHF_3	Trifluormethane
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
COHb	carboxyhemoglobin
CA	California
CAA	Clean Air Act

Acronym	Definition
CAAQS	California Ambient Air Quality Standards
CAFÉ	Corporate Average Fuel Economy
CalEEMod™	California Emissions Estimator Model™
CalEPA	California Environmental Protection Agency
CalFire	California Department of Forestry and Fire Protection
CALGreen	California Green Building Standards Code
Caltech	California Institute of Technology
Caltrans	California Department of Transportation
Calveno	California Vehicle Noise
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CAPSSA	Criteria Area Plant Species Survey Area
CARB	California Air Resources Board
CASSA	Criteria Area Species Survey Area
CAT	Climate Action Team
CBSC	California Building Standards Code
CCR	California Code of Regulations
CDC	California Department of Conservation
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CES	Criteria Area Species
CESA	California Endangered Species Act
CETAP	Community Environmental Transportation Acceptability Process
CFCs	Chlorofluorocarbons
CFR	Code of Federal Regulations
CGC	California Government Code
CGS	California Geologic Survey
cfs	cubic feet per second
CHE	Cargo Handling Equipment
CIWMB	California Integrated Waste Management Board
CIWMP	Countywide Integrated Waste Management Plan
CWHR	California Wildlife Habitat Relationship
CLCA	California Land Conservation Act
CMP	Congestion Management Plan
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CPHI	California Points of Historic Interest
CPUC	California Public Utilities Commission
CNEL	Community Noise Equivalent Level
COG	Council of Governments
CORPS	United States Army Corps of Engineers
CPHI	California Points of Historic Interest
CPUC	California Public Utilities Commission

Acronym	Definition
CREC	Controlled Recognized Environmental Condition
CRHL	California Registered Historic Landmarks
CRPR	California Rare Plant Rank
CSA	County Service Area
CSC	California species of Concern
CTP	Clean Truck Program
c.u.	cubic yards
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
CZ	Change of Zone
Db	Decibel
dBA	A-weighted Decibels
DBESP	Determination of Biologically Superior Preservation
DEH	Department of Environmental Health
DIF	Development Impact Fee
DoD	Department of Defense
DOE	Department of Energy
DOI	Department of Interior
DOT	Department of Transportation
DPM	Diesel Particulate Matter
DPR	Department of Parks and Recreation
DTSC	Department of Toxic Substances Control
du/ac	dwelling units per acre
DWR	Department of Water Resources
EDR	Environmental Data Review
EIC	Eastern Information Center
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EMFAC	Emissions Factor Model
EMWD	Eastern Municipal Water District
EO	Executive Office
EPA	Environmental Protection Agency
EPD	Environmental Programs Department
ESA	Environmental Site Assessment
ESFR	Early Suppression Fast Response
et seq.	*et sequentia*, meaning "and the following"
F	Fahrenheit
Ft.	Feet
FAA	Federal Aviation Administration
FAR	Floor Area Ratio
FEIR	Final Environmental Impact Report
FEMA	Federal Emergency Management Agency

Acronym	Definition
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
FRA	Federal Responsibility Area
FTA	Federal Transit Administration
FUDS	formerly Used Defense Sites
FY	Fiscal Year
GCC	Global Climate Change
GCCC	Global Climate Change Center
Gg	gigagrams
GgCO2e	Gigagrams of carbon dioxide equivalent
GHGs	Greenhouse Gases
GIS	Geographic Information System
GPA	General Plan Amendment
GPD	gallons per day
GVWR	Gross Vehicle Weight Rating
GWP	Global Warming Potential
H_2O	Water Vapor
HCM	Highway Capacity Manual
HCP	Habitat Conservation Plan
HFCs	Hydrofluorocarbons
HHD	Heavy-Duty Trucks
HHW	Household Hazardous Waste
HI	Hazard Index
HMBEP	Hazardous Materials Business Emergency Plan
hp	horsepower
HREC	Historical Recognized Environmental Condition
HRS	Hazard Ranking System
HSAA	Hazardous Substance Account Act
HVWAP	Harvest Valley/Winchester Area Plan
HVAC	Heating, Ventilation, and Air Conditioning
HWCL	Hazardous Waste Control Law
I-10	Interstate 10
I-15	Interstate 15
I-215	Interstate 215
I-405	Interstate 405
I-710	Interstate 710
i.e.	that is
in.	inches
IA	Implementing Agreement
IBC	International Building Code

Acronym	Definition
IEPR	Integrated Energy Policy Report
IPCC	Intergovernmental Panel on Climate Change
IRWMP	Integrated Regional Water Management Plan
ISTEA	Intermodal Surface Transportation Efficiency Act
ITE	Institute of Transportation Engineers
JD	Jurisdictional Delineation
JPA	Joint Powers Authority
kBTU/yr	kilo-British Thermal Units per year
kWh/yr	kilowatt-hours of electricity per year
LAFCO	Local Agency Formation Commission
LBP	Lead-based Paint
LCA	Life-cycle analysis
LDA	Light-Duty-Auto Vehicles
LDMF	Local Development Mitigation Fee
Leq	equivalent continuous sound level
LHD	Light-Heavy-Duty-Trucks
LID	Low Impact Development
LLA	Lot Line Adjustment
LNAP	Lakeview/Nuevo Area Plan
LOS	Level of Service
LRA	Local Responsibility Area
LST	Localized Significance Threshold
LUST	Leaking Underground Storage Tank
M^3	Cubic Meter
MARB	March Air Reserve Base
March ARB/IPA	March Air Reserve Base/Inland Port Airport
MATES	Multiple Air Toxics Exposure Study
MAWA	Maximum Applied Water Allowance
MBTA	Migratory Bird Treaty Act
MCL	Maximum Contaminant Level
MDP	Master Drainage Plan
MEIR	maximally exposed individual receptor
MEISC	maximally exposed individual school child
MEIW	maximally exposed individual worker
MHD	Medium-Heavy-Duty Trucks
MICR	Maximum Individual Cancer Risk
MLD	Most Likely Descendant
MM	Mitigation Measure
MMRP	Mitigation Monitoring and Reporting Program
MMTs	million metric tons
$MTCO_{2e}$	Metric Tons of Carbon Dioxide Equivalent

Acronym	Definition
MMTCO2e	million metric tons of carbon dioxide equivalent
Mph	Miles per hour
MPO	Metropolitan Planning Organization
MPG	Miles per gallon
MSHCP	Multiple Species Habitat Conservation Plan
MT	metric ton
MUTCD	Manual on Uniform Traffic Control Devices
MVAP	Mead Valley Area Plan
MWD	Metropolitan Water District
N_2	Nitrogen
No.	Number
NO	Nitric Oxide
NO_2	Nitrogen Dioxide
NO_X	Nitrogen Oxides
N_2	Nitrogen
N_2O	Nitrous Oxide
n.d.	no date
n/o	North of
n.p.	no page
NAHC	Native American Heritage Commission
NAAQS	National Ambient Air Quality Standards
NB	Northbound
NEPS	narrow Endemic Plant Species
NEPSSA	Narrow Endemic Plant Species Survey Area
NF	Notable Findings
NHRP	National Register of Historic Places
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NPL	National Priorities List
O_2	Oxygen
O_3	Ozone
OHWM	Ordinary High Water Mark
OPR	Office of Planning and Research
Ord.	Ordinance
OWOW	One Water One Watershed
Pb	Lead
PCBs	polychlorinated biphenyls
PCE	Passenger Car Equivalent
PFCs	Perfluorocarbons
p.m.	Post Meridiem (between the hours of noon and midnight)
PM	Parcel Map
PM	Particulate Matter

Acronym	Definition
$PM_{2.5}$	Fine Particulate Matter (2.5 microns or smaller)
PM_{10}	Fine Particulate Matter (10 microns or smaller)
PP	Plot Plan
ppb	parts per billion
ppm	parts per million
pp.	pages
ppt	parts per trillion
POLA	Port of Los Angeles
POLB	Port of Long Beach
PRIMP	Paleontological Resource Impact Mitigation Program
PPV	Peak Particle Velocity
PRC	Public Resources Code
PUC	Public Utilities Commission
PVRWRF	Perris Valley Regional Water Reclamation Facility
RCALUC	Riverside County Airport Land Use Commission
RCDEH	Riverside County Department of Environmental Health
RCFCWCD	Riverside County Flood Control and Water Conservation District
RCFD	Riverside County Fire Department
RCHL	Riverside County Historical Landmarks
RCIT	Riverside County Information Technology
RCRA	Resource Conservation and Recovery Act
RCNM	Roadway Construction Noise Model
RCRMC	Riverside County Regional Medical Center
RCTC	Riverside County Transportation Commission
RCSD	Riverside County Sheriff's Department
RCWMD	Riverside County Waste Management Department
Rd.	Road
REC	Recognized Environmental Condition
RECLAIM	Regional Clean Air Incentives Market
Regs	Regulations
REL	Reference Exposure Level
REMEL	Reference Mean Emission Level
RHNA	Regional Housing Needs Assessment
RHSA	Regional System of Highways and Arterials
RivTAM	Riverside County Transportation Analysis Model
RMS	Root-Mean-Square
ROD	Record of Decision
ROGs	Reactive Organic Gasses
ROW	Right-of-Way
RTA	Riverside Transit Authority
RTP	Regional Transportation Plan
RTPA	Regional Transportation Planning Agency
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RUWMP	Regional Urban Water Management Plan

Acronym	Definition
RWQCB	Regional Water Quality Control Board
SO_2	Sulfur Dioxide
SO_4	Sulfates
SO_X	Sulfur Oxides
s/o	south of
s.f.	square feet
SARA	Superfund Act and Reauthorization Act
SAWPA	Santa Ana Watershed Project Authority
SB	Southbound
SB	Senate Bill
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCH	State Clearinghouse
SCS	Sustainable Communities Strategy
SDWA	Safe Drinking Water Act
Sec.	Seconds
SFS	Sustainable Freight Strategy
SKR	Stephens' Kangaroo Rat
SLF	Sacred Lands File
SOI	Sphere-of-Influence
Sp.	Species
SR-60	State Route 60
SR-62	State Route 62
SR-74	State Route 74
SR-91	State Route 91
SR-243	State Route 243
SRA	Source Receptor Area
SRRE	source Reduction and Recycling Element
St.	Street
STP	Shovel Test Pit
SWP	State Water Project
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Regional Control Board
TAC	Toxic Air Contaminants
TEA	Transportation Equity Act
TMDL	Total Maximum Daily Load
TLMA	Transportation and Land Management Agency
TPM	Tentative Parcel Map
TRT	Total Response Time
TS	Traffic Signal
TSF	Thousand Square Feet

Acronym	Definition
TUMF	Transportation Uniform Mitigation Fee
µg	microgram
UCR	University of California Riverside
UNFCCC	United Nations Framework Convention on Climate Change
U.S.	United States
USACE	United States Army Corps of Engineers
USCB	United States Census Bureau
USDA	U.S. Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United Stated Geological Society
UST	Underground Storage Tank
UTR	Utility Tractor
UWMP	Urban Water Management Plan
VVUSD	Val Verde Unified School District
VdB	Vibration Decibels
VMT	Vehicle Miles Traveled
VOCs	Volatile Organic Compounds
w/o	West of
WQMP	Water Quality Management Plan
WRCOG	Western Riverside Council of Governments
WRP	Waste Recycling Plan
WSA	Water Supply Assessment
WSAP	Water Supply Allocation Plan
WSDMP	Water Surplus and Drought Management Plan
WSCP	Water Shortage Contingency Plan
Wy.	Way
YBP	Years before Present

S.0 EXECUTIVE SUMMARY

S.1 INTRODUCTION

The California Environmental Quality Act (CEQA), Public Resources Code § 21000, et seq. requires that before a public agency makes a decision to approve a project that could have one or more adverse effects on the physical environment, the agency must inform itself about the project's potential environmental impacts, give the public an opportunity to comment on the environmental issues, and take feasible measures to avoid or reduce potential harm to the physical environment.

The Project evaluated by this EIR encompasses two separate, independent projects, referred to herein as Knox Business Park Building D and Knox Business Park Building E. Because these projects are adjacent and are proposed by the same Project Applicant, CEQA requires that they be evaluated as a single project. CEQA prohibits piecemeal environmental review of projects with related impacts that could be considered a single project. Thus, this Environmental Impact Report (EIR), having California State Clearinghouse (SCH) No. 2015081081 was prepared in accordance with CEQA Guidelines Article 9, § 15120 to § 15132, to evaluate the potential environmental impacts associated with planning, constructing, and operating the proposed Knox Business Park Buildings D and E projects (collectively hereafter, the "Project" or "proposed Project"). This EIR does not recommend approval, approval with modification, or denial of the proposed Project; rather, this EIR is a source of impartial information regarding potential impacts that the Project may cause to the physical environment. The Draft EIR will be available for public review for a minimum period of 45 days. After consideration of public comment, the County of Riverside will consider certifying the Final EIR and adopting required findings in conjunction with Project approval. In the case that there are any adverse environmental impacts that cannot be fully mitigated, the County of Riverside must adopt a Statement of Overriding Considerations, stating why the County is taking action to approve the Project with or without modification despite its unavoidable impacts.

This Executive Summary complies with CEQA Guidelines § 15123, "Summary." This EIR document includes a description of the proposed Project and evaluates the physical environmental effects that could result from Project implementation. The County of Riverside determined that the scope of this EIR should cover 17 subject areas. The scope was determined through the completion of an Initial Study accepted by the County of Riverside's independent judgment pursuant to CEQA Guidelines § 15063, and in consideration of public comment received by the County in response to this EIR's Notice of Preparation (NOP). The Initial Study, NOP, and written comments received by the County in response to the NOP, are attached to this EIR as *Technical Appendix A.* As determined by the Initial Study and in consideration of public comment on the NOP, the 17 environmental subject areas that could be reasonably and significantly affected by planning, constructing, and/or operating the proposed Project are analyzed herein, including:

1. Aesthetics
2. Agriculture and Forest Resources

3. Air Quality
4. Biological Resources
5. Cultural Resources
6. Geology and Soils
7. Greenhouse Gas Emissions
8. Hazards and Hazardous Materials
9. Hydrology and Water Quality
10. Land Use and Planning
11. Noise
12. Population and Housing
13. Public Services
14. Recreation
15. Transportation and Traffic
16. Utilities and Service Systems
17. Paleontological Resources

Refer to EIR Section 4.0, *Environmental Analysis*, for a full account and analysis of the subject matters listed above. As mentioned, the scope of this EIR includes these 17 subject areas as determined through the completion of an Initial Study pursuant to CEQA Guidelines § 15063, and in consideration of public comment to this EIR's NOP. Subject areas for which the Initial Study concluded that impacts would be clearly less than significant and that do not warrant further analysis in this EIR are addressed in EIR Section 5.0, *Other CEQA Considerations.* For each of the 17 subject areas analyzed in detail in Section 4.0, this EIR describes: 1) the physical conditions that existed at the approximate time this EIR's NOP was filed with the California State Clearinghouse (August 31, 2015); 2) discloses the type and magnitude of potential environmental impacts resulting from Project planning, construction, and operation; and 3) if warranted, recommends feasible mitigation measures that have a proportional nexus to the Projects' impacts and that would reduce or avoid significant adverse environmental impacts that the proposed Project may cause. A summary of the proposed Project's significant environmental impacts and the mitigation measures imposed by the County of Riverside on the Project to lessen or avoid those impacts is included in this *Executive Summary* as Table S-1, *Mitigation Monitoring and Reporting Program.*

This EIR also discusses alternatives to the proposed Project. Alternatives are described that would attain most of the Projects' objectives while avoiding or substantially lessening the proposed Projects' significant adverse environmental effects. A full discussion of Project alternatives is found in EIR Section 6.0, *Alternatives.*

S.2 PROJECT OVERVIEW

S.2.1 LOCATION AND REGIONAL SETTING

The approximately 58.6 gross-acre Project site is located in the unincorporated community of Mead Valley, in western Riverside County, California. Western Riverside County abuts San Bernardino

County to the northeast, Orange County to the west, and San Diego County to the south. Los Angeles County is located further to the northwest. Figure 3-1, *Regional Map*, in EIR Section 3.0, *Project Description*, depicts the Project site's location in a regional context. The Project site is located west of the cities of Moreno Valley and Perris and southeast of the City of Riverside. Specifically, the Project site is located approximately 0.4-mile west of Interstate 215 (I-215) and the City of Perris, 1.5 miles west of the City of Moreno Valley, 5.8 miles south of State Route 60 (SR-60), and 2.5 miles southeast of the City of Riverside.

At the local scale, the Project site is located south of Oleander Avenue, north of Redwood Drive, east of Day Street, and west of Harvill Avenue. Ellsworth Street (also referred to as "Decker Road" throughout this EIR and the EIR's Technical Appendices) transects the Project site in a north to south direction. The approximately 37.1-acre portion of the Project site located east of Ellsworth Street is referred to within this EIR as the "Building D Site." The approximately 21.5-acre portion of the Project site located west of Ellsworth Street is referred to within this EIR as the "Building E Site." Figure 3-2, *Vicinity Map*, in EIR Section 3.0, *Project Description*, identifies the location of the Project site and illustrates the relationship between the Building D Site and the Building E Site. The Project site lies within the northeastern portion of Section 2, Township 4 South, Range 4 West (San Bernardino Baseline and Meridian). The Building D Site occupies Assessor Parcel Number (APN) 314-040-001, 314-040-002, 314-040-003, and 314-040-008. The Building E Site occupies APN 314-020- 017, and a portion of 314-020-010.

S.2.2 PROJECT OBJECTIVES

The County's primary objective and underlying purpose of the Project is to entitle property in the Mead Valley community for commerce and employment-generating purposes, in order to bring new business and jobs to the area. The objectives pertinent to the proposed Project are as follows:

A. To develop vacant or underutilized property in Mead Valley in close proximity to I-215 with business park warehouse buildings offering loading bays that can be used as part of the Southern California goods movement network.

B. To make efficient use of a property in Mead Valley by maximizing its buildout potential for employment-generating uses.

C. To attract new employment-generating businesses along the I-215 corridor thereby growing the economy and providing a more equal jobs-housing balance in the Riverside County/Inland Empire area that will reduce the need for members of the local workforce to commute outside the area for employment.

D. To develop Class A business park warehouse buildings in Mead Valley that meet industry standards for modern, operational design criteria and can accommodate a wide variety of users.

E. To develop vacant or underutilized property in Mead Valley with structures that have architectural design and operational characteristics that complement other new developments in the immediate vicinity.

F. To develop business park warehouse buildings that are economically competitive with similar buildings in the local area and region.

S.3 PROJECT DESCRIPTION SUMMARY

The Project Applicant proposes to develop two business park warehouse buildings, Building D and Building E, on approximately 58.6 gross acres in the Mead Valley area of unincorporated Riverside County. The principal discretionary actions required of Riverside County to implement the Project are summarized below and described in more detail in EIR Section 3.0, *Project Description.*

S.3.1 BUILDING D APPLICATIONS

A. General Plan Amendment No. 1151 (GPA 1151)

The Building D Site is designated "Community Development-Light Industrial (CD-LI)" and "Community Development-Business Park (CD-BP)" by the Riverside County General Plan under existing conditions. GPA 1151 would change the land use designation of the portion of the property designated CD-BP to CD-LI so that the entire Building D Site is designated CD-LI.

B. Change of Zone No. 7872 (CZ 7872)

The Building D Site is zoned "Manufacturing – Medium (M-M)", "Industrial Park (I-P)", and "Rural Residential (R-R)" under existing conditions. CZ 7872 would change the zoning designations of the portions of the property zoned M-M and R-R to I-P, so that the entire Building D Site is zoned I-P.

C. Tentative Parcel Map No. 36950 (PM 36950)

Tentative Parcel Map No. 36950 (PM 36950) proposes to consolidate the four parcels on the Building D Site into one, approximately 34.5-net-acre parcel. In addition, 2.6 acres would be dedicated as public right-of-way (i.e., frontage improvements to Ellsworth Street and Oleander Avenue). PM 36950 also identifies the earthwork and grading and infrastructure improvements needed on the Building D Site to support proposed development.

D. Plot Plan No. 25838 (PP 25838)

Proposed Building D would provide for the development of one business park warehouse building containing 702,645 s.f. of building space (677,645 s.f. of warehouse floor space, 15,000 s.f. of ground floor office space, and 10,000 s.f. of mezzanine office space). PP 25838 includes a site plan, architectural plans, and landscape design for the Building D Site.

S.3.2 BUILDING E APPLICATIONS

A. General Plan Amendment No. 1152 (GPA 1152)

The Building E Site is designated "Community Development-Business Park (CD-BP)" by the Riverside County General Plan under existing conditions. GPA 1152 would change the land use designation from CD-BP to "Community Development-Light Industrial (CD-LI)."

B. Change of Zone No. 7873 (CZ 7873)

The Building E Site is zoned "Rural Residential ½-Acre Lot Sizes (R-R-1/2)" and "Industrial Park (I-P)." CZ 7873 would change the zoning designation of the portion of the property zoned R-R-½ to I-P so that the entire Building E Site is zoned I-P.

C. Tentative Parcel Map No. 36962 (PM 36962)

Tentative Parcel Map No. 36962 (PM 36962) would combine the property's three existing parcels into a single, approximately 19.5-net-acre parcel and would dedicate approximately 2.0 acres to the County of Riverside as public right-of-way (i.e., frontage improvements to Ellsworth Street and Oleander Avenue). In addition, PM 36962 identifies the earthwork and grading and infrastructure improvements needed on the Building E Site to support proposed development.

D. Plot Plan No. 25837

PP 25837 would provide for the development of one industrial business park building containing 410,982 s.f. of building space (395,982 s.f. of warehouse floor space and 15,000 s.f. of ground floor office space). PP 25837 includes a site plan, architectural plans, and landscape design for the Building E Site.

S.4 EIR PROCESS

As a first step in complying with the procedural requirements of CEQA for an EIR, an Initial Study was prepared by the County of Riverside to determine whether any aspect of the proposed Project, either individually or cumulatively, may cause a significant adverse effect on the physical environment (refer to EIR *Technical Appendix A* for a copy of the Initial Study). For this Project, the Initial Study indicated that this EIR should focus on 17 environmental subject areas listed above in Subsection S.1. After completion of the Initial Study, the County filed a NOP with the California Office of Planning and Research (State Clearinghouse) to indicate that an EIR would be prepared. In turn, the Initial Study and NOP were distributed for a 30-day public review period, which began on August 31, 2015. The County of Riverside received written comments on the scope of the EIR during those 30 days, which were considered by the County during the preparation of this EIR. In addition, and pursuant to CEQA Guidelines § 15082(c)(1), an advertised public meeting (called a scoping session) was held at the Riverside County Administrative Building on September 14, 2015.

This EIR is being circulated for review and comment by the public and other interested parties, agencies, and organizations for a 45-day review period. During the 45-day public review period, public notices announcing availability of the Draft EIR will be mailed to interested parties, an advertisement will be published in the Press Enterprise (newspaper of general circulation in the Project area), and copies of the Draft EIR and its Technical Appendices will be available for review at the locations indicated in the public notices.

After the close of the 45-day Draft EIR public comment period, the County will prepare and publish responses to written comments it received on the environmental effects of the proposed Projects. The Final EIR will then be considered by the County of Riverside Planning Commission, which will issue recommendations to the Riverside County Board of Supervisors. The County Board of Supervisors must certify this EIR before making a decision to approve, or approve with modification, either of the proposed Projects. After the EIR is certified, the County Board of Supervisors will have the discretion to take action on the proposed Knox Business Park Building D Project and the proposed Knox Business Park Building E Project concurrently at the same hearing, or sequentially at separate hearings. Approval of the proposed Projects would be accompanied by the adoption of written findings and a statement of overriding considerations for any significant unavoidable environmental impacts identified in the Final EIR. In addition, the County must adopt a Mitigation, Monitoring, and Reporting Program (MMRP), which describes the process to ensure implementation of the mitigation measures identified in the Final EIR. The MMRP will ensure CEQA compliance during construction and operation of the Project. The MMRP identifies which mitigation measures apply to the Building D Site and which mitigation measures apply to the Building E Site. Many of the mitigation measures apply to both sites, but a few apply to only one or the other.

S.5 AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

CEQA Guidelines § 15123(b)(2) requires that areas of controversy known to the Lead Agency (County of Riverside) be identified in the EIR's *Executive Summary*. The Lead Agency has identified one issue of controversy associated with the operation of warehouse buildings, which is air pollutant emissions associated with the operation of diesel-fueled vehicles.

Regarding issues to be resolved, this EIR addresses the environmental issues that are known by the County, that are identified in the Initial Study prepared for the Projects, and that were identified in the comment letters that the County of Riverside received on this EIR's NOP (refer to *Technical Appendix A* of this EIR). Environmental topics raised in written comment to the NOP are summarized in Table 1-1, *Summary of NOP Comments*, in Section 1.0 of this EIR, and include but are not limited to the topics of air quality, biological resources, hazards and hazardous materials, hydrology and water quality, land use and planning, and transportation and traffic.

S.6 ALTERNATIVES TO THE PROPOSED PROJECT

In compliance with CEQA Guidelines § 15126.6, an EIR must describe a range of reasonable alternatives to the Project or to the location of the Project. Each alternative must be able to feasibly

attain most of the Project's objectives and avoid or substantially lessen the Project's significant effects on the environment. A detailed description of each alternative evaluated in this EIR, as well as an analysis of the potential environmental impacts associated with each alternative, is provided in EIR Section 6.0, *Alternatives to the Proposed Project*. Also, described in Section 6.0 is a list of alternatives that were considered but rejected from further analysis. Refer to EIR Table 6-1 for a comparison of each alternative's environmental impacts to the proposed Project's level of impacts.

S.6.1 NO PROJECT/NO DEVELOPMENT ALTERNATIVE

The No Project/No Development Alternative would result in no physical environmental impacts to the Project site beyond those that have already occurred on the property and ongoing, required weed abatement. All significant effects of the Project would be avoided or lessened by the selection of the No Project/No Development Alternative. The No Project/No Development Alternative would fail to meet all of the Project's objectives. This alternative is, however, considered to be environmentally superior to the proposed Project.

S.6.2 NO PROJECT / EXISTING GENERAL PLAN DESIGNATION ALTERNATIVE

The No Project/Existing General Plan Alternative considers development of the Project site with a mixture of uses that are in conformance with the Project site's existing Riverside County General Plan and Mead Valley Area Plan land use designation and applicable policies. For analysis purposes, this alternative considers development of the Project site with 588,000 s.f. of industrial park buildings, and 550,000 s.f. of general warehouse buildings. The selection of the No Project/Existing General Plan Designation Alternative would achieve a few of Project's objectives, and also would not have any environmental advantages. Because this alternative would generate approximately 3.7 times more traffic than the proposed Project, it would result in more severe significant impacts to air quality, greenhouse gas emissions, noise, and transportation. This alternative is not considered to be environmentally superior to the proposed Project.

S.6.3 BUILDING D ONLY ALTERNATIVE – THE ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Under this alternative, the Building D Site would be developed as proposed by the Project, with a 702,645 s.f. industrial business park building. The Building E Site would remain vacant and would be regularly maintained for weed abatement and wildfire suppression purposes. Oleander Road and Ellsworth Street would be improved along the frontage of the Building D Site; no roadway frontage improvements would occur abutting the Building E Site. Selection of the Building D Only Alternative would reduce, but not avoid the Project's significant unavoidable impacts to air quality, land use and planning, noise, and transportation. Because this Alternative would attain some of the basic objectives of the Project with reduced environmental impacts, it is considered to be environmentally superior to the proposed Project and the environmentally superior alternative as defined by CEQA.

S.6.4 REDUCED PROJECT / TRUCK TRAILER STORAGE ALTERNATIVE

Under this alternative, the Building D Site would be developed as proposed by the Project, with a 702,645 s.f. industrial business park building. The Building E Site would be developed as a truck trailer parking yard to service the building constructed on the Building D Site. Selection of the Reduced Project/Truck Trailer Storage Alternative would reduce, but not avoid the Project's significant unavoidable impacts to air quality, land use and planning, noise, and transportation. The Reduced Project/Truck Trailer Storage Alternative would meet some of the Project's objectives but to a lesser degree. Because this alternative would attain the basic objectives of the Project with reduced environmental impacts, it is considered to be environmentally superior to the proposed Project.

S.6.5 REDUCED PROJECT / LARGER BUILDING ALTERNATIVE

Under this alternative, a 1,250,000 s.f. high cube warehouse building would be constructed on the Building D Site and the Building E Site, spanning the two areas. The segment of Ellsworth Street that segregates the two Sites would be vacated as a public right-of-way to allow for construction of the building. Selection of the Larger Building Alternative would result in similar if not identical impacts as would occur under the proposed Project under all environmental topics with the exception of air quality and operational traffic. Construction-related air quality impacts would increase because more construction activity would occur on a daily basis. Operational-related DPM exposure to off-site populations may increase because the building's loading docks and truck courts would be located closer to sensitive receivers. Also, the loss of the Ellsworth Street segment through the center of the property would cause other local roads to carry a greater volume of traffic. The Larger Building Alternative would meet all of the Project's objectives, but would not have any environmental advantages. Because this alternative would result in greater impacts to air quality and transportation, it is not considered to be environmentally superior to the proposed Project.

S.7 SUMMARY OF IMPACTS, MITIGATION MEASURES, AND CONCLUSIONS

S.7.1 EFFECTS FOUND NOT TO BE SIGNIFICANT

The scope of this EIR includes 17 subject areas determined through the completion of an Initial Study prepared by the County of Riverside pursuant to CEQA Guidelines § 15063 and CEQA Statute § 21002(e), as well as consideration of public comments received by the County on this EIR's NOP and during the September 14, 2015 public scoping session. The Initial Study, NOP, and public comments received in response to the NOP, are attached to this EIR as *Technical Appendix A.* There was one subject areas for which the County concluded that impacts clearly would be less than significant and that does not warrant further analysis in this EIR: Mineral Resources. This EIR addresses the topic of Mineral Resources in EIR Subsection 5.0, *Other CEQA Considerations.*

S.7.2 IMPACTS OF THE PROPOSED PROJECT

Table S-1, *Mitigation Monitoring and Reporting Program*, provides a summary of the proposed Project's environmental impacts, as required by CEQA Guidelines § 15123(a). Also presented are the

mitigation measures imposed on the Project by the County of Riverside to further avoid adverse environmental impacts or to reduce their level of significance. After the application of all feasible mitigation measures, the Project would result in five significant and unavoidable environmental effects, as summarized below.

- Air Quality - Significant and Unavoidable Direct and Cumulatively Considerable Impact. There are no feasible mitigation measures to eliminate or offset the Project's near-term inconsistency with SCAQMD's 2012 AQMP due to exceedance of the SCAQMD emissions thresholds.

- Air Quality - Significant and Unavoidable Direct and Cumulatively Considerable Impact. Even after the application of feasible mitigation measures, the Project's VOCs and NO_X daily operational emissions would exceed the SCAQMD's significance thresholds. Emissions of NO_X are primarily a result of mobile source emissions (i.e., vehicles traveling to and from the Project site), which are regulated by state and federal emissions and fuel use standards, and beyond the direct control of the Project Applicant and/or future users of the Project site's buildings.

- Land Use and Planning – Significant and Unavoidable Direct and Cumulatively Considerable Impact. The Project would develop the subject property with two business park warehouse buildings and associated site improvements, including, but not limited to, surface parking areas, vehicle drive aisles, truck courts, utility infrastructure, landscaping, exterior lighting, signage, walls and fencing, and water quality/detention basins. The changes to the Project site proposed by the Project represent a substantial alteration to the site's present land use, construction and operation of which would result in significant effects to the environment that cannot be reduced to less-than-significant levels through the application of feasible mitigation.

- Noise (Traffic Related) – Significant and Unavoidable Direct Impact. No feasible mitigation measures are available to reduce the Project's transportation-related noise impacts along the Oleander Avenue segments west of Harvill Avenue and east of the Project's Driveway #6 under Existing + Project and Project Opening Year conditions. Although noise levels along the affected segments of Oleander Avenue would not exceed the County's 65 dBA CNEL standard for noise-sensitive uses, the Project's contribution to existing noise levels would represent a substantial noise increase over existing conditions, and residential structures would be affected. The affected residential parcels are non-conforming and designated by the Riverside County General Plan for "Business Park" land uses. By the Year 2035 (Buildout Year), the Project's contribution of transportation-related noise along the above-listed segments of Oleander Avenue would be reduced to less than significant levels, because as ambient traffic volumes increase on the road, the Project's overall percentage of the noise contribution would diminish. Although the

Project's impact would be significant and unavoidable, by Year 2035, the impact would be less than significant.

- Transportation (Local Roadway System) - Significant and Unavoidable Cumulatively Considerable Impact. The Project Applicant would pay development impact fees and participate in fair share funding programs to mitigate the Project's direct and cumulative impacts to the local roadway network. However, several of the needed transportation improvements are either funded by existing mitigation funding programs (including TUMF) with no timetable for construction (meaning the necessary improvements may not be in place when the Project becomes operational and starts to contribute traffic to the facilities), or the improvements are not included in any existing mitigation funding program (therefore, there is no mechanism currently available for development projects to contribute toward the construction of needed improvements, and thus no assurance that the improvements would be implemented). Accordingly, the Project's cumulatively considerable impacts to four (4) intersections in the Existing + Ambient Growth + Project + Cumulative (E+A+P+C) analysis scenario are concluded to be unavoidable. The affected intersections are: 1) Ellsworth Street / Oleander Avenue; 2) Harvill Avenue / Harley Knox Boulevard; 3) I-215 Southbound Ramps / Harley Knox Boulevard; and 4) I-215 Northbound Ramps / Harley Knox Boulevard.

- Transportation (State Highway System) – Significant and Unavoidable Cumulatively Considerable Impact. The Project would contribute traffic to the state highway system, which is under the jurisdiction of Caltrans. As such, the County of Riverside cannot assure the construction of improvements to state highway facilities. Furthermore, Caltrans does not have funding mechanism in place to allow development projects to contribute fair-share payments. Although a mitigation measure is recommended that requires the Project Applicant to offer fair share fee contributions to Caltrans to fund improvements to state highway system facilities that the Project's traffic would impact, there is no assurance that Caltrans will develop a fee program and implement the improvements prior to the time that the Project begins to contribute traffic to the facilities. Accordingly, the Project's contribution of traffic to the state highway system facilities under E+A+P+C and/or Horizon Year (2035) conditions is concluded to be a significant and unavoidable cumulative impact.

Table S-1 Mitigation Monitoring and Reporting Program

THRESHOLD	COUNTY REGULATIONS AND DESIGN REQUIREMENTS (RR) AND/OR MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
4.1 Aesthetics					
Summary of Impacts					
Scenic Resources Threshold (a) for the Building D Site and the Building E Site: No Impact. There are no designated scenic highways in the vicinity of the Project site. The portion of the Ramona Expressway located east of I-215 and approximately 1.2 miles southeast of the Project site is a County Eligible scenic highway, but due to the 1.2-mile distance and intervening development, the Project site is not visible from this roadway segment. As such, the Project has no potential to adversely impact views from a scenic highway corridor.	No mitigation is required.	N/A	N/A	N/A	No Impact
Scenic Resources Threshold (b) for the Building D Site and the Building E Site: Less-than-Significant Impact. The proposed Project would not substantially damage scenic resources or significantly obstruct any prominent scenic vistas or public views. The Project site does not contain any unique scenic resources. Development of the Project would not substantially block views of scenic mountain resources in the distance. Also, the proposed Project incorporates design elements such as landscaping, landscaped slopes, walls, and architectural features to ensure that development proposed on the Building D and Building E Sites would not create an aesthetically offensive site open to public view.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Mt. Palomar Observatory		N/A	N/A	N/A	Less-than-Significant Impact

THRESHOLD	COUNTY REGULATIONS AND DESIGN REQUIREMENTS (RR) AND/OR MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Threshold (a) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project site is located within Zone B of the Mt. Palomar Observatory Nighttime Lighting Policy Area. Mandatory compliance with Riverside County Ordinance No. 655 will ensure that the Project does not interfere with the nighttime use of the Mt. Palomar Observatory and impacts would be less than significant.	**RR-1** The Project is required to comply with Riverside County Ordinance No. 655, which is intended to restrict the permitted use of certain light fixtures emitting light into the night sky which could have a detrimental effect on astronomical observation and research. Ordinance No. 655 sets forth requirements for lamp source and shielding of light emissions for outdoor fixtures to reduce "skyglow" or light pollution that affects day or nighttime views from the Mt. Palomar Observatory (located approximately 24 miles southeast of the Project site in northern San Diego County).				
Other Lighting Issues Threshold (a) for the Building D Site and the Building E Site: Less-than-Significant Impact. Construction and operation of Building D and Building E would introduce new sources of artificial light and typical of business park developments. No glare-producing building materials are proposed. Mandatory compliance with Riverside County Ordinances Nos. 655 and 915, which provide lighting standards to eliminate adverse effects of lighting associated with development, will ensure that the Project does not create new sources of substantial light or glare that affect day or nighttime views in the area.	**RR-2** The Project is required to comply with Riverside County Ordinance No. 915, which is intended to provide minimum requirements for outdoor lighting in order to reduce light trespass. Ordinance No. 915 provides regulations on adequate lighting shielding, glare, and light trespass in order to ensure all development in Riverside County installs lighting in a way that does not jeopardize the health, safety, or general welfare of Riverside County residents and degrade their quality of life. **RR-1** also applies.	N/A	N/A	N/A	Less-than-Significant Impact
Other Lighting Issues Threshold (b) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would not expose residential properties to unacceptable light levels. Mandatory compliance with Riverside County Ordinances Nos. 655 and 915, which provide lighting and light shielding standards would ensure that that Project does not expose off-site residential properties to unacceptable light levels.	**RR-1** and **RR-2** apply.	N/A	N/A	N/A	Less-than-Significant Impact

THRESHOLD	COUNTY REGULATIONS AND DESIGN REQUIREMENTS (RR) AND/OR MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
4.2 Agriculture and Forest Resources					
Summary of Impacts					
Agriculture Threshold (a) for the Building D Site and the Building E Site: No Impact. The Project as proposed on the Building D Site and Building E Site would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use. There is no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) on the Project site and a large majority of the on-site soils have severe limitations for agricultural crop production.	No mitigation is required.	N/A	N/A	N/S	No Impact
Agriculture Threshold (b) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Building D Site and the Building E Site do not contain land zoned for agriculture or land used for agricultural purposes. With mandatory compliance to Riverside County Ordinance No. 625, impacts would be less than significant.	**RR-3** The Project is required to comply with Riverside County Ordinance No. 625, which requires that when non-residential uses are developed adjacent to properties zoned primarily for agricultural purposes (that support agricultural operations that have been in place for at least three years and not considered a nuisance operation at the time the operation began), future property owners must be notified of any agricultural operations that are on-going in the area, and acknowledge that such agricultural uses shall not be the subject of nuisance complaints.	N/A	N/A	N/A	Less-than-Significant Impact
Agriculture Threshold (c) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would have less-than-significant impacts to off-site properties that are agriculturally zoned. Aspects of the Building D and Building E Site's physical design, including the proposed creation of manufactured slopes around the building pad perimeters, would provide a physical separation between the proposed development and off-site agriculturally	**RR-3** applies.	N/A	N/A	N/A	Less-than-Significant Impact

THRESHOLD	COUNTY REGULATIONS AND DESIGN REQUIREMENTS (RR) AND/OR MITIGATION MEASURES (MM)	RESPONSIBLE PARTY	MONITORING PARTY	IMPLEMENTATION STAGE	LEVEL OF SIGNIFICANCE AFTER MITIGATION
zoned property. Also, no surrounding property is currently used primarily for agricultural purposes. Should an off-site property within 300 feet become used for agriculture, mandatory compliance to Ordinance No. 625, as would be required by the County, would further ensure that impacts would be less- than-significant.					
Agriculture Threshold (d) for the Building D Site and the Building E Site: No Impact. Due to the lack of agricultural activity and Farmland in the Project vicinity, the Project has no potential to result in changes to the existing environment which, due to their location or nature, could result in the conversion of Farmland to a non-agricultural use	No mitigation is required.	N/A	N/A	N/A	No Impact
Forest Threshold (a) for the Building D Site and the Building E Site: No Impact. The Project site is not zoned as forest land and there are no lands within the Project site's vicinity that are zoned for forest land, timberland, or Timberland Production. Thus, implementation of the proposed Project on the Building D Site and the Building E Site would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production.	No mitigation is required.	N/A	N/A	N/A	No Impact
Forest Threshold (b) for the Building D Site and the Building E Site: No Impact. There is no forest land on the Project site. Thus, implementation of the proposed Project on the Building D Site and the Building E Site would not result in the conversion of forest land to non-forest use.	No mitigation is required.	N/A	N/A	N/A	No Impact

Forest Threshold (c) for the Building D Site and the Building E Site: No Impact. The Project site does not contain forest land. Thus, the Project would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of forest land to non-forest use.	No mitigation is required.	N/A	N/A	N/A	No Impact
4.3 Air Quality					
Summary of Impacts					
Threshold (a) for the Building D Site and the Building E Site: Significant Direct and Cumulatively Considerable Impact. Project construction-source emissions would exceed localized significance thresholds for NO_2, $PM_{10,}$ and $PM_{2.5}$. In addition, the Project would exceed the growth forecasts assumed for a portion of the Building E Site by the SCAQMD AQMP; therefore, the proposed Project would conflict with the implementation of the AQMP on a significant direct and cumulatively considerable basis.	**RR-4** The Project is required to comply with the provisions of the South Coast Air Quality Management District (SCAQMD) Rule 403 "Fugitive Dust." Rule 403 requires implementation of best available dust control measures during construction activities that generate fugitive dust, such as earth moving, grading, and construction equipment travel on unpaved roads. To comply with Rule 403, and prior to grading permit issuance, the County of Riverside shall verify that notes are specified on the Project's grading plans requiring Rule 403 compliance. Project construction contractors would be required to ensure compliance with the notes and permit periodic inspection of the construction site by County of Riverside staff or its designee to confirm compliance. To comply with Rule 403: 1. In order to limit fugitive dust emissions, all clearing, grading, earth-moving, or excavation activities shall cease when winds exceed 25 miles per hour (mph) per SCAQMD guidelines. 2. The construction contractor(s) shall ensure that all disturbed unpaved roads and disturbed areas within the Project site are watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three (3) times a day, preferably in the mid-morning, afternoon, and after work is done for the day. 3. The construction contractor(s) shall ensure that traffic speeds on unpaved roads and the Project site area are reduced to 15 miles per hour or less.	Project Contractors	County of Riverside Building & Safety Department	Prior to grading permit issuance.	Short-Term Construction: Less-than-Significant Long-Term Operation: Significant and Unavoidable Direct and Cumulatively Considerable Impact

	RR-5 The Project is required to comply with the provisions of the South Coast Air Quality Management District (SCAQMD) Rule 1113 "Table of Standards" pertaining VOC emissions by using zero-Volatile Organic Compounds paints (no more than 100 gram/liter of VOC) and/or High Pressure Low Volume (HPLV) applications. Prior to building permit final inspection, the County of Riverside shall verify a note requiring Rule 1113 compliance is specified on all building plans. Project contractors would be required to comply with the note and maintain written records of such compliance that can be inspected by the County of Riverside or its designee upon request.	Project Contractors	County of Riverside Building & Safety Department	Prior to building permit final inspection.	
	RR-6 The Project's construction activities are required to comply with the provisions of the South Coast Air Quality Management District (SCAQMD) Rule 1186 "PM10 Emissions from Paved and Unpaved Roads and Livestock Operations," which requires the use of a street sweeper certified by the AQMD, and the use of non-toxic chemical stabilizers for dust control.	Project Contractors	County of Riverside Building & Safety Department	During Project Construction	
	RR-7 Project construction activities are required to comply with the California Manual on Uniform Traffic Control Devices, which specify that temporary traffic controls shall be provided during construction, such as a flag person, during all phases of construction to facilitate the flow of construction traffic on streets abutting the Project site.	Project Contractors	County of Riverside Building & Safety Department	During Project Construction	
	RR-8 The Project is required to comply with the provisions of SCAQMD Rule 402, "Nuisance" which requires that a person shall not discharge air contaminants or other materials that would cause health or safety hazards to any considerable number of persons or the public.	Project Contractors	County of Riverside Building & Safety Department	During Project Construction	
	RR-9 The Project is required to comply with the California Green Building Standards Code (CALGreen), including all Nonresidential Mandatory Measures, including but not limited to requirements	Project Applicant; Project Contractors	County of Riverside Building & Safety Department	During Project Construction and Operation	

	for bicycle parking, parking for clean air vehicles, charging stations, lighting, water conservation, waste reduction, and building maintenance. The provisions of CALGreen reduce energy use and fossil fuel use, which reduce air pollutant emissions.				
	RR-10 Diesel-fueled vehicles at the Project site are required to comply with the California Air Resources Board (CARB) idling restriction requirements, which currently restrict vehicles from idling for more than 5 minutes. Prior to building permit final inspection, the County of Riverside shall verify that signs are posted in the Project's truck courts specifying the idling restriction requirement.	Project Contractors	County of Riverside Building & Safety Department	Prior to building permit final inspection.	
	MM 4.3-1 (Applies to the Building D Site and the Building E Site) Prior to grading permit issuance, the County of Riverside shall verify that the following notes are included on the grading plans. Project contractors shall be required to ensure compliance with these notes and permit periodic inspection of the construction site by County of Riverside staff or its designee to confirm compliance. These notes also shall be specified in bid documents issued to prospective construction contractors. a) Onsite electrical hook-ups to a power grid shall be provided for electric construction tools including saws, drills, and compressors, where feasible, to reduce the need for diesel powered electric generators. b) All Heavy-Heavy Duty Haul Trucks (HHD) accessing the Project site shall use year 2010 or newer engines during all construction activities to the extent such HHD are commercially available. c) All excavators, graders, and rubber-tired dozers shall be CARB Tier 3 Certified or better. d) All scrapers shall be CARB Tier 4 Certified or better. e) The total horsepower-hours per day for all on-site equipment shall not exceed 46,344 horsepower hours per day.	Project Applicant; Project Contractors	County of Riverside Building & Safety Department	Prior to grading permit issuance.	

	f) The maximum daily disturbance area (actively graded area) shall not exceed 11.0 acres per day.				
	MM 4.3-2 (Applies to the Building D Site and the Building E Site) Construction equipment shall be properly maintained according to manufacturer specifications and all contractors shall turn off all construction equipment and delivery vehicles when not in use, or limit onsite idling to no more than five minutes in any one hour. Onsite electrical hook-ups to a power grid shall be provided for electric construction tools including saws, drills, and compressors, where feasible, to reduce the need for diesel powered electric generators. Construction contractors shall keep construction equipment maintenance records and data sheets of equipment design specifications (including the emission control tier of the equipment) onsite during construction and subject to inspection by the County of Riverside.	Project Contractors	County of Riverside Building & Safety Department	During Project Construction	
	MM 4.3-3 (Applies to the Building D Site and the Building E Site) Within six months of building occupancy, signs shall be posted at the building informing truck drivers about the health effects of diesel particulates, the California Air Resources Board diesel-fueled vehicle idling regulations, and the importance of being a good neighbor by not parking in residential areas. Developer and all successors shall include this obligation in all leases of the Project so that all tenants shall fulfill the terms and conditions of this County condition of approval.	Project Applicant and all successors	County of Riverside Building & Safety Department	Within Six Months of Building Occupancy	
	MM 4.3-4 (Applies to the Building D Site and the Building E Site) Within six months of building occupancy, signs shall be posted in all dock and delivery areas containing the following: truck drivers shall turn off engines when not in use; trucks shall not idle for more than five minutes; telephone numbers of the building facilities manager and the California Air Resources Board to report violations. Developer and all successors shall include the provisions of the requirements of these obligations in all leases of the	Project Applicant and all successors	County of Riverside Building & Safety Department	Within Six Months of Building Occupancy	

	Project so that all tenants shall fulfill the terms and conditions of this County condition of approval.				
	MM 4.3-5 (Applies to the Building D Site and the Building E Site) Owner users and tenants of the Project shall maintain records on its fleet equipment and vehicle engine maintenance to ensure that its HHD fleet serving the warehouses within the Project are in good condition, and in proper tune pursuant to manufacturer's specifications. Owner users and tenants shall ensure that all HHD accessing the Project site shall comply with 13 California Code of Regulations Section 2025, as may be amended (the "Regulations"), and that all HHD accessing the Project site shall comply with the required registration and reporting provisions of the Regulations. Developer and all successors shall include the provisions of the requirements of these obligations in all leases of the Project so that all tenants shall fulfill the terms and conditions of this County condition of approval.	Project Applicant and all successors	County of Riverside Building & Safety Department	Prior to building permit final inspection.	
	MM 4.3-6 (Applies to the Building D Site and the Building E Site) Site enforcement staff in charge of monitoring for excess vehicle idling shall be trained/certified in diesel health effects and technologies, for example, by requiring attendance at California Air Resources Board approved courses. Developer and all successors shall include this obligation in all leases of the Project so that all tenants shall fulfill the terms and conditions of this County condition of approval.	Project Applicant and all successors	County of Riverside Building & Safety Department	Prior to building permit final inspection.	
	MM 4.3-7 (Applies to the Building D Site and the Building E Site) All owner users and future tenants shall participate in Riverside County's Rideshare Program. The purpose of this program is to discourage single-occupancy vehicle trips and encourage other alternative modes of transportation. Carpooling opportunities and public transportation information shall be advertised to employees of the building tenant. Developer and all successors shall include the provisions of this obligation in all leases of the Project	Project Applicant and all successors	County of Riverside Building & Safety Department	Prior to building permit final inspection.	

	so that all tenants shall fulfill the terms and conditions of this County condition of approval.				
	MM 4.3-8 (Applies to the Building D Site and the Building E Site) Prior to the issuance of a building permit, the County shall verify that the building's roof is designed to accommodate a 1 KW photovoltaic (PV) solar array taking into consideration limitations imposed by other rooftop equipment, roof warranties, building and fire code requirements, and other physical or legal limitations. The building shall be constructed with the necessary electrical system and other infrastructure to accommodate PV arrays in the future. The electrical system and infrastructure shall be clearly labeled with noticeable and permanent signage which informs future occupants/owners of the existence of this infrastructure.	Project Contractors	County of Riverside Building & Safety Department	Prior to building permit final inspection.	
	MM 4.3-9 (Applies to the Building D Site and the Building E Site) Developer and all successors shall include information in building lease agreements that inform tenants about the air quality benefits associated with water-based or low volatile organic compounds (VOC) cleaning products.	Project Applicant and all successors	County of Riverside Building & Safety Department	Prior to building permit final inspection.	
	MM 4.3-10 Developer and all successors shall include information in building lease agreements that inform tenants about the benefits of becoming SmartWay Shippers and SmartWay Carriers. SmartWay is a federal EPA program that advances supply chain sustainability.	Project Applicant and all successors	County of Riverside Building & Safety Department	Prior to issuance of occupancy permits.	
Thresholds (b) and (c) for the Building D Site and the Building E Site: Significant Direct and Cumulatively Considerable Impact. The Project would emit concentrations of NO_X during construction that would cause or contribute to an existing or projected air quality violation, on both a direct and cumulatively considerable basis. During long-term operation, the Project would exceed SCAQMD's regional criteria for daily VOC and NO_X emissions which would result in a significant impact to the	**MM 4.3-1** through **MM 4.3-2** and **RR-4** through **RR-10** apply.	See above	See above	See above	Significant and Unavoidable Direct and Cumulatively Considerable Impact

environment on both a direct and cumulatively considerable basis.					
Threshold (d) for the Building D Site and the Building E Site: Significant Direct and Cumulatively Considerable Impact The Project's construction-related emissions would exceed the SCAQMD's localized significance thresholds for emissions of NO_2, PM_{10}, and $PM_{2.5}$. The Project's emissions would not create a CO hotspot. Long-term operations at the Project site would cause less-than-significant direct and less-than-significant cumulatively considerable human health impacts due to the exposure of residents, workers, and school children substantial diesel particulate emissions (DPMs).	**MM 4.3-1** and MM **4.3-2** apply.	See above	See above	See above	Less-than-Significant Impact
Threshold (e) for the Building D Site and the Building E Site: No Impact. The Project proposes to develop the property with two industrial business park buildings which would not contain sensitive receptors that could be exposed to point source emissions. The Project does not propose land uses that would be considered point source emitters.	No mitigation is required.	N/A	N/A	N/A	No Impact
Threshold (f) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would not produce unusual or substantial construction-related odors. Odors associated with long-term operation of the Project would be minimal and less than significant. The Project would be required to comply with SCAQMD Rule 402, which prohibits the discharge of odorous emissions that would create a public nuisance.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
4.4 Biological Resources					
Summary of Impacts					
Threshold (a) for the Building D Site and the Building E Site: Significant Direct and Cumulatively Considerable Impact. The Project is subject to compliance with two	**RR-11** The Project Applicant shall comply with County of Riverside Ordinance No. 810.2 (Western Riverside County MSHCP Fee Program Ordinance), which requires a per-acre local development impact	Project Applicant	Riverside County Planning Department	Prior to the issuance of a building permit.	Less-than-Significant Impact

Habitat Conservation Plans (HCPs): the Western Riverside County Multiple Species Conservation Program (MSHCP) and the Stephens' Kangaroo Rat (SKR) HCP. The Project site is not located in a planned conservation area of either HCP, and is required by the Riverside County Municipal Code to pay MSCHP and SKR HCP mitigation fees. Regarding applicable MSHCP provisions for properties located outside of conservation areas, the Project would result in significant direct and cumulatively considerable impacts to the western burrowing owl if the species is present on the site when construction activities commence. The Project also would result in the loss of an ephemeral drainage that occurs on the Building D Site (0.09-acre (677 feet)) and the Building E Site (0.13-acre (944 feet)), which qualifies as a MSHCP riverine resource because it receives fresh water flow during all or a portion of the year. The loss of this resource on the Project site would be a direct and cumulatively-considerable impact associated with the loss of riverine resources in the Western Riverside County MSHCP area. Complete avoidance of the riparian/riverine resources is not feasible. Because there are no feasible avoidance alternatives available, the MSHCP requires the Project to provide compensatory mitigation to ensure the replacement of any lost functions and values as it related to the plan and wildlife species covered by the MSHCP	and mitigation fee payment prior to the issuance of a building permit. **RR-12** The Project Applicant shall comply with County of Riverside Ordinance No. 663 (as amended through 663.10) (Stephens' Kangaroo Rat Mitigation Fee Ordinance) which requires a per-acre local development and mitigation fee payment prior to the issuance of a grading permit. **RR-13** The Project Applicant shall comply with the federal Migratory Bird Treaty Act. **MM 4.4-1 (Applies to the Building D Site and the Building E Site)** Pursuant to Objectives 5, 6, and 7 of the Species Account for the Burrowing Owl included in the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), within 30 days prior to the issuance of a grading permit, a pre-construction presence/absence survey for the burrowing owl shall be conducted by a qualified biologist and the results provided in writing to the Environmental Programs Department. If it is determined that the project site is occupied by the Burrowing Owl, take of "active" nests shall be avoided pursuant to the MSHCP and the Migratory Bird Treaty Act (MBTA). However, when the Burrowing Owl is present, relocation outside of the nesting season (March 1 through August 31) by a qualified biologist shall be required. The County Biologist shall be consulted to determine appropriate type of relocation (active or passive) and translocation sites, in accordance with California Department of Fish and Wildlife (CDFW) guidelines. In the event that burrowing owls are occupying the Project site at the time of the pre-construction survey, passive relocation shall not be allowed. A grading permit may be issued once the species has been relocated. If the grading permit is not obtained within 30 days of the survey, a new survey shall be required.	Project Applicant Project Applicant Project Applicant; Project Biologist	Riverside County Planning Department Riverside County Planning Department Riverside County Environmental Programs Department (EPD)	Prior to the issuance of a grading permit. Prior to the issuance of a grading permit. Within 30 days prior to grading activities; prior to the issuance of a grading permit.	

	MM 4.4-2 (Applies to the Building D Site and the Building E Site) As a condition of grading permits, a migratory nesting bird survey of all trees to be removed shall be conducted by a qualified biologist within 10 days prior to initiating tree removal or vegetation clearing within 500 feet of a mature tree. A copy of the migratory nesting bird survey results report shall be provided to the Riverside County Environmental Programs Department (EPD). If the survey identifies the presence of active nests, then the qualified biologist shall provide the Riverside County EPD with a copy of maps showing the location of all nests and an appropriate buffer zone around each nest sufficient to protect the nest from direct and indirect impacts. The size and location of all buffer zones, if required, shall be subject to review and approval by the Riverside County EPD and shall be no less than a 300-foot radius around the nest for non-raptors and a 500-foot radius around the nest for raptors. The nests and buffer zones shall be field checked weekly by a qualified biological monitor. The approved buffer zone shall be marked in the field with construction fencing, within which no vegetation clearing or ground disturbance shall commence until the qualified biologist and Riverside County EPD verify that the nests are no longer occupied and the juvenile birds can survive independently from the nests.	Project Applicant: Qualified Biologist	Riverside County Environmental Programs Department (EPD	Within 10 days prior to initiating tree removal or vegetation clearing within 500 feet of a mature tree	
	MM 4.4-3 (Applies to the Building D Site) To mitigate for permanent impacts to a 0.09-acre (677 linear foot) ephemeral drainage feature on the Building D Site, the Project Applicant shall pay into the Riverside Corona Resource Conservation District in-lieu fee program, at a 2:1 ratio, totaling 0.18 acre. Evidence of fee payment shall be supplied to the Riverside County Environmental Programs Department (EPD) prior to issuance of a grading permit.	Project Applicant	Riverside County Environmental Programs Department (EPD)	Prior to issuance of a grading permit.	
	MM 4.4-4 (Applies to the Building E Site) To mitigate for permanent impacts to a 0.11-acre (690 linear feet) ephemeral drainage feature on the Building E Site, the Project Applicant shall pay into the	Project Applicant	Riverside County Environmental Programs Department (EPD)	Prior to Issuance of Grading Permit.	

	Riverside Corona Resource Conservation District in-lieu fee program, at a 2:1 ratio, totaling 0.22-acre. Evidence of fee payment shall be supplied to the Riverside County Environmental Programs Department (EPD) prior to issuance of a grading permit.				
Thresholds (b) and (c) for the Building D Site and the Building E Site: Significant Direct and Cumulatively Considerable Impact. The Project would result in less-than-significant impacts to sensitive plant species. No sensitive plant communities are located on the Project site. Although paniculate tarplant is not a MSHCP-covered species, because the plant species is not rare, threatened, or endangered, because its range is sufficiently broad, because the CNPS listing for the species is relatively low for the species, and because habitat for this species is preserved elsewhere within the MSHCP boundaries, the loss of the species on the Project site is considered less than significant. Loss of individual plants on the Project site would not threaten the species as a whole. Thus, the Project's impacts to the species would be less than significant and less than cumulatively considerable. In regards to sensitive wildlife species, the Project would significantly impact the western burrowing owl if the species is present on the Project site at the time construction activities commence. In addition, migratory bird species protected by the MBTA would be impacted by the Project if active nests are present on the site at the time that nesting habitat (trees and shrubs) are removed. These impacts would be direct and cumulatively considerable. Impacts to the San Diego black-tailed jackrabbit is considered less than significant because it is a Western Riverside County MSHCP-covered species.	**MM 4.4-1**, **MM 4.4-2**, and **MM 4.4-3** apply.	See Above	See Above	See Above	Less-than-Significant Impact

Threshold (d) for the Building D Site and the Building E Site: Significant Direct and Cumulatively Considerable Impact. The Project has the potential to impact nesting migratory birds if active nests are disturbed during the nesting season (February 1 to August 31). The Project would not substantially interfere with the movement of any other native resident or migratory fish or wildlife species, would not interfere with a migratory wildlife corridors, and would not impede the use of native wildlife nursery sites.	**MM 4.4-2** applies.	See Above	See Above	See Above	Less-than-Significant Impact
Threshold (e) and (f) for the Building D Site: Significant Direct and Cumulatively Considerable Impact. The Project as proposed on the Building D Site would result in the direct loss of 0.09-acre (677 feet) of an ephemeral drainage feature dominated by upland plant species that receives fresh water flow during all or a portion of the year. The drainage features qualifies as a Western Riverside County MSHCP riverine resource and falls under the jurisdiction of the CDFW. No impact to riparian habitats, vernal pools, State or federal wetlands, "waters of the United States," or other sensitive natural communities would occur.	**MM 4.4-3** applies.	See Above	See Above	See Above	Less-than-Significant Impact
Threshold (e) and (f) for the Building E Site: Significant Direct and Cumulatively Considerable Impact. The Project as proposed on the Building E Site would result in the direct loss of 0.13-acre (944 feet) of an ephemeral drainage feature dominated by upland plant species that receives fresh water flow during all or a portion of the year. The drainage features qualifies as a Western Riverside County MSHCP riverine resource and falls under the jurisdiction of the CDFW. No impact to riparian habitats, vernal pools, State or federal wetlands, waters of the United States, or other sensitive natural communities would occur.	**MM 4.4-4** applies.	See Above	See Above	See Above	Less-than-Significant Impact

Threshold (g) for the Building D Site and the Building E Site: No Impact. Other than the Western Riverside County MSHCP and SKR HCP, which are addressed under Threshold (a), there no other local policies or ordinances protecting biological resources that are applicable to resources present on the Project site. No impact would occur.	**RR-11, RR-12** and **RR-13** apply.	See above.	See above.	See above.	No Impact
4.5 Cultural Resources					
Summary of Impacts					
Historic Resources: Thresholds (a) and (b) for the Building D Site and Building E Site: Less-than-Significant Impact. The Project as proposed on the Building D Site would not alter or destroy an historic site and would not cause a substantial adverse change in the significance of a historical resource as defined in California Code of Regulations, § 15064.5.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Archaeological Resources: Thresholds (a) and (b) for the Building D and Building E Site: Significant Direct and Cumulatively Considerable Impact. Five archaeological sites are located on the Project site, of which three would be fully impacted by the Project and two would be partially impacted by the Project. None of the five sites meet the definition of a significant historic resource listed in CEQA Guidelines § 15064.5. Therefore, the Project would not alter or destroy a unique archaeological site or cause a substantial adverse change in the significance of a known, unique archaeological resource. However, Project-related construction activities have the potential to unearth and adversely impact significant archaeological resources that may be buried beneath the ground surface and discovered during Project construction activities. Impacts would be significant on a direct and cumulatively considerable basis if discovered resources are determined to be	**MM 4.5-1 (Applies to the Building D Site and the Building E Site).** Prior to the issuance of grading permits, the developer/permit applicant shall enter into a monitoring agreement with the Pechanga and Soboba Native American Tribes. A Native American monitor shall be on-site during all initial ground disturbing activities and excavation of each portion of the project site including clearing, grubbing, tree removals, and trenching. In conjunction with an Archaeological Monitor, the Native American Monitor shall have the authority to temporarily divert, redirect, or halt the ground disturbance activities to allow identification, evaluation, and potential recovery of cultural resources. The developer/permit applicant shall submit a fully executed copy of the agreement to the County Archaeologist to ensure compliance with this condition.	Developer/Permit Holder/ Riverside County-qualified approved archaeological monitor and a Native American representative from tribes that chose to participate. /Project Applicant/ Riverside County Archaeologist	Riverside County Planning Department	Prior to the issuance of a grading permits	Less-than-Significant Impact

significant and are not properly identified and treated.	**MM 4.5-2 (Applies to the Building D Site)** In accordance with the letter dated February 2, 2017 to Heather Thomson, County Archaeologist from Project Archaeologist Brian F. Smith and Associates, regarding "Relocation of Bedrock Milling Features Located Within Knox Business Park (Decker Parcels I and II" and as a condition of the grading permit for the Building D Site (Planning Case No. 36950), before construction activities are allowed to start, and using professional archaeological methods, any visible artifacts associated with Sites CA-RIV-8401 and CA-RIV-8402 shall be recovered and recorded, and photo documentation of each situ shall occur. The current Department of Parks and Recreation forms for the sites shall be updated, detailing which features were relocated, the process through which this was done, and updated maps using sub meter GIS technology to document the new location of each feature. The relocation information shall be included in a Phase IV Monitoring Report.	Project Contractors	Riverside County Planning Department	Prior to construction activities.	
	MM 4.5-3 (Applies to the Building E Site) In accordance with the letter dated February 2, 2017 to Heather Thomson, County Archaeologist from Project Archaeologist Brian F. Smith and Associates, regarding "Relocation of Bedrock Milling Features Located Within Knox Business Park (Decker Parcels I and II" and as a condition of the grading permit for the Building E Site (Planning Case No. 36962), before construction activities are allowed to start, and using professional archaeological methods, any visible artifacts associated with Sites CA-RIV-1330H and CA-RIV-11874 shall be recovered and recorded, and photo documentation of each situ shall occur. The current Department of Parks and Recreation forms for the sites shall be updated, detailing which features were relocated, the process through which this was done, and updated maps using sub meter GIS technology to document the new location of each feature. The relocation information shall be included in a Phase IV Monitoring Report.	Project Contractors	Riverside County Planning Department	Prior to construction activities.	

	MM 4.5-4 (Applies to the Building E Site) Prior to issuance of a grading permit for Planning Case No. 36962, the developer/permit applicant shall provide evidence to the County Archaeologist that the following notes have been provided on the Grading Plan: "Temporary fencing shall be provided for the protection of the off-site parcel located to the immediate west during any grading activities within 100 feet of the western property boundary. The fence shall be installed under the supervision of the County approved archaeologist prior to commencement of grading or brushing and be removed only after grading operations have been completed."	Project Developer / Permit Holder	Riverside County Archaeologist	Prior to the issuance of a grading permit.	
	MM 4.5-5 (Applies to the Building D Site and the Building E Site) Prior to the issuance of grading permits, the developer/permit applicant shall provide evidence to the County of Riverside Planning Department that a County certified professional archaeologist has been contracted to implement a Cultural Resource Monitoring Program. A Cultural Resource Monitoring Plan shall be developed that addresses the details of all activities and provides procedures that must be followed in order to reduce the impacts to cultural and historic resources to a level that is less than significant as well as address potential impacts to undiscovered buried archaeological resources associated with this project. This document shall be provided to the County Archaeologist for review and approval prior to issuance of the grading permit. These measures shall include, but shall not be limited to, the following: 1) Archaeological Monitor: An adequate number of qualified monitors shall be present to ensure that all earth moving activities are observed; the monitors shall be on-site during all grading activities for areas to be monitored including any off-site improvements. Inspections will vary based on the rate of excavation, the materials excavated, and the presence and abundance of artifacts and features. The frequency and	Project Developer / Permit Holder	Riverside County Planning Department; Riverside County Archaeologist	Prior to the issuance of a grading permit.	

	location of inspections will be determined by the Project Archaeologist. 2) Cultural Sensitivity Training: The Project Archaeologist and a representative designated by the Tribe shall attend the pre-grading meeting with the contractors to provide Cultural Sensitivity Training for all Construction Personnel. Training will include a brief review of the cultural sensitivity of the Project site and the surrounding area; what resources could potentially be identified during earthmoving activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated; and any other appropriate protocols. This is a mandatory training and all construction personnel must attend prior to beginning work on the Project site. A sign-in sheet for attendees of this training shall be included in the Phase IV Monitoring Report. 3) **Building D Site** Controlled Grading: Several bedrock milling features at cultural sites CA-RIV-8401 and CA-RIV-8402 will be impacted during construction activities and the soils surrounding them will be disturbed. A controlled grading program will be developed by the Project Archaeologist and included in the Cultural Resources Monitoring Program. The controlled grading program shall require the systematic removal of the ground surface to allow for the identification, documentation and recovery of any subsurface cultural deposits. Results of the controlled grading program shall be included in the Phase IV Monitoring Report. **Building E Site** Controlled Grading: Several bedrock milling features at cultural sites CA-RIV-8901, CA-RIV-1330/H and CA-RIV-11874 will be impacted during construction activities and the soils surrounding them will be disturbed.				

	A controlled grading program will be developed by the Project Archaeologist and included in the Cultural Resources Monitoring Program. The controlled grading program shall require the systematic removal of the ground surface to allow for the identification, documentation and recovery of any subsurface cultural deposits. Results of the controlled grading program shall be included in the Phase IV Monitoring Report.				
	MM 4.5-6 (Applies to the Building D Site and the Building E Site) If during ground disturbance activities, unanticipated cultural resources are discovered, the following procedures shall be followed: 1) All ground disturbance activities within 100 feet of the discovered cultural resource shall be halted and the applicant shall call the County Archaeologist immediately upon discovery of the cultural resource*. A meeting shall be convened between the developer, the project archaeologist**, the Native American tribal representative (or other appropriate ethnic/cultural group representative), and the County Archaeologist to discuss the significance of the find. At the meeting with the aforementioned parties, a decision is to be made, with the concurrence of the County Archaeologist, as to the appropriate treatment (documentation, recovery; avoidance, etc.) for the cultural resource. 2) Further ground disturbance shall not resume within the area of the discovery until the appropriate treatment has been accomplished. *A cultural resource site is defined, for this condition, as being a feature and/or three or more artifacts in close association with each other, but may include fewer artifacts if the area of the find is determined to be of significance due to sacred or cultural importance. **If not already employed by the project developer, a County approved archaeologist	Developer/Permit Applicant/Tribal Monitor	Riverside County Planning Department; Riverside County Archaeologist	During Ground Disturbing Activities	

	shall be employed by the project developer to assess the value/importance of the cultural resource, attend the meeting described above, and continue monitoring of all future site grading activities as necessary.				
	MM 4.5-7 (Applies to the Building D Site and the Building E Site) Prior to building final, provide evidence to the satisfaction of the County Archaeologist that all archaeological materials recovered during the archaeological investigations (this includes collections made during an earlier project; such as testing of archaeological sites that took place years ago), have been curated at the Western Science Center, a Riverside County Curation facility that meets federal standards per 36 CFR Part 79 and therefore will be professionally curated and made available to other archaeologists/researchers and tribal members for further study. The collection and associated records shall be transferred, including title, and are to be accompanied by payment of the fees necessary for permanent curation. Evidence shall be in the form of a letter from the curation facility identifying that archaeological materials have been received and that all fees have been paid.	Project Developer; Native American Monitor	Riverside County Planning Department; Riverside County Archaeologist	Prior to Building Final	
	MM 4.5-8 (Applies to the Building D Site and the Building E Site) Upon completion of the implementation phase, a Phase IV Cultural Resources Monitoring Report shall be submitted that complies with the Riverside County Planning Department's requirements for such reports for all ground disturbing activities associated with the grading permit. The report shall follow the County of Riverside Planning Department Cultural Resources (Archaeological) Investigations Standard Scopes of Work posted on the TLMA website. The report shall include results of any feature relocation or residue analysis required as well as evidence of the required cultural sensitivity training for the construction staff held during the required pre-grade meeting. A report documenting the field and analysis results and interpretation of the artifact and research data within the research context shall be	Construction Contractor; Project archaeologist and any participating Native American representatives	Riverside County Planning Department	Upon Completion of Archaeological work.	

	completed and submitted to the satisfaction of the Lead Agency (County of Riverside) prior to issuance of any building permits. The report will include Department of Parks and Recreation (DPR) and Primary Archaeological Site Forms. A final copy shall be submitted to the Eastern Information Center (EIS) and Native American tribes that request a copy.				
Archaeological Resources: Threshold (c) for the Building D Site and Building E Site: Less-than-Significant Impact. There are no known human remains on the Project site. In the unlikely event that human remains are discovered during Project grading or other ground disturbing activities, compliance with the applicable provisions of the California Health and Safety Code § 7050.5 and California Public Resources Code § 5097 et. seq. is required. Mandatory compliance with State law would ensure that human remains, if encountered, are appropriately treated and would preclude the potential for significant impacts to Native American remains.	**RR-14** Pursuant to California Health and Safety Code Section 7050.5, if human remains are encountered, no further disturbance shall occur until the Riverside County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b), human remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. In the event that the remains are determined to be of Native American origin, the Native American Heritage Commission (NAHC) shall be contacted by the Coroner within the period specified by law (24 hours). Subsequently, the Native American Heritage Commission shall identify the "Most Likely Descendant." The Most Likely Descendant shall then make recommendations and engage in consultation with-the property owner concerning the treatment of the remains as provided in Public Resources Code Section 5097.98. Human remains from other ethnic/cultural groups with recognized historical associations to the project area shall also be subject to consultation between appropriate representatives from that group and the County Archaeologist.	Project Contractors	Riverside County Coroner; Native American Heritage Commission; Riverside County Archaeologist	During Project Construction	Less-than-Significant Impact
Archaeological Resources: Threshold (d) for the Building D Site and Building E Site: No Impact. The Project has no potential to restrict a religious or sacred use.	No mitigation is required.	N/A	N/A	N/A	No Impact
Archaeological Resources: Threshold (e) Less-than Significant Impact. Five archaeological sites are located on the Project site, of which three would be fully impacted by the Project and two would be partially impacted by the Project. None of	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

the five sites meet the definition of a significant resource listed in CEQA Guidelines § 15064. In addition, because there is a lack of substantial evidence to conclude that the subject property is part of a cultural landscape, the Project site is deemed by Riverside County as part of neither a cultural landscape nor a TCR under AB 52. As such, tribal cultural resources as defined in Public Resources Code 21074 do not exist on the Project site and impacts would be less than significant					
4.6 Geology and Soils					
Summary of Impacts					
Alquist-Priolo Earthquake Fault Zone or County Fault Zone Thresholds (a) and (b) for the Building D Site: Less-than-Significant Impact. Development on the Building D Site would not expose people or structures to substantial adverse seismic risks. The Building D Site and the Building E Site are not located within a mapped Alquist-Priolo Earthquake Fault Zone and there are no known active or potentially active faults on the Project site or trending toward the Project site; therefore, the Project site is not subject to risk of fault rupture. Mandatory compliance with local and state regulatory requirements related to building construction would ensure that Building D and Building E are developed as required to attenuate the seismic risk to people or structures to less-than-significant levels.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Alquist-Priolo Earthquake Fault Zone or County Fault Zone Thresholds (a) and (b) for the Building E Site: Less-than-Significant Impact. The Building E Site is not located within a mapped Alquist-Priolo Earthquake Fault Zone and there are no known active or potentially active faults on the Site or	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

trending toward the Site; therefore, the Site is not subject to risk of fault rupture. However, development of a manufactured slope and parking area on the Building E Site would potentially expose people or structures to substantial adverse seismic risks associated with the presence of an inactive fault feature located in the western portion of the property. With implementation of the Project's design features, the potential for differential settlement, shrinking/expansion along the clay-rich shear zone, and secondary sympathetic movement associated with large earthquakes in the nearby area, would be less than significant.					
Liquefaction Zone Potential Threshold (a) for the Building D Site and Building E Site: Less-than-Significant Impact. The Building D Site and the Building E Site have a low potential for liquefaction and seismic-related ground failure. Accordingly, liquefaction impacts would be less than significant	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Ground-Shaking Zone Threshold (a) for the Building D Site and the Building E Site: Less-than-Significant Impact. As with all properties within the southern California region, the Project site is subject to seismic ground shaking associated with earthquakes; however, mandatory compliance with local and state ordinances and building codes including but not limited to the CBSC (Chapter 18) and County of Riverside Building Code would ensure that the proposed structures are developed as required to preclude adverse effects involving strong seismic ground-shaking. Impacts would be less than significant.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Landslide Risk Threshold (a) for the Building D Site and Building E Site: Less-than-Significant Impact. There is no potential for Building D	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

or Building E to cause on- or off-site landslides or lateral spreading. Potential hazards associated with soils on the Project site that have the potential for lateral spreading and collapse would be precluded through use of non-explosive rock breaking/blasting techniques during Project construction, mandatory adherence to recommendations given in the Building D Site and the Building E Site geotechnical reports, and mandatory compliance with applicable regulations. The Project would create stable manufactured slopes that would not be subject to rockfall hazards. The potential to result in on- or off-site landslide, lateral spreading, collapse, or rockfall hazards would be less than significant.					
Ground Subsidence Threshold (a) for the Building D Site and the Building E Site: Less-than-Significant Impact. Ground subsidence has the potential to occur on the Building D and Building E sites. However, mandatory adherence to recommendations given in the Building D Site and the Building E Site geotechnical reports and mandatory compliance with applicable regulations would ensure proper grading techniques such that impacts related to ground subsidence would be less than significant.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Other Geologic Hazards Threshold (a) for the Building D Site and the Building E Site: No Impact. The Project site has no potential to be subjected to geologic hazards such as seiche, mudflow, or volcanic hazards	No mitigation is required.	N/A	N/A	N/A	No Impact
Slopes Threshold (a) for the Building D Site and the Building E Site: Less-than-Significant Impact. Development of the Building D Site and the Building E Site would change topography and ground surface relief features as compared to existing conditions.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

However, as a standard condition of Project approval, the Project would be required to comply with the site-specific recommendations contained in the geotechnical report for the Building D site and the Building E Site, including recommendations related to site preparation, soil compaction, and manufactured slope design that would minimize potential hazards associated with manufactured slope failure. Impacts would be less than significant.					
Slopes Threshold (b) for the Building D Site and the Building E Site: Less-than-Significant Impact. Building D and Building E would create cut or fill slopes higher than 10 feet and greater than 2:1. Both buildings would be required to comply with the recommendations in the geotechnical reports to ensure the stability of these slopes, as well as all other applicable regulations. Compliance with the recommendations and applicable regulations would reduce impacts associated with slope construction to less than significant.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Slopes Threshold (c) for the Building D Site: Less-than-Significant Impact. The existing septic system associated with the existing mobile home would be removed in accordance with all applicable rules and regulations. With mandatory compliance with all applicable County rules and regulations, the Project would not result in grading that affects or negates subsurface sewage disposal systems. Impacts would be less than significant.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Slopes Threshold (c) for the Building E Site: No Impact. The Building E Site contains no subsurface sewage systems. As such, development of the Building E Site would	No mitigation is required.	N/A	N/A	N/A	No Impact

not affect or negate subsurface sewage disposal systems. No impact would occur.					
Soils Threshold (a) for the Building D Site and Building E Site: Less-than-Significant Impact. The Project would not result in substantial soil erosion or the loss of topsoil. The Project Applicant is required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for construction activities as well as adhere to SCAQMD Rule 403 during Project construction. With mandatory compliance to these regulatory requirements, the potential for soil erosion impacts during construction would be less than significant. Following construction, soil erosion on the Project site would be minimized, as the areas disturbed during construction would be landscaped or covered with impervious surfaces and drainage would be controlled through a storm drain system. Furthermore, Building D and Building E are required by law to implement a WQMP during operation, which would preclude substantial erosion impacts in the long-term.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Soils Threshold (b) for the Building D Site and Building E Site: Less-than-Significant Impact. Soils on the Project site have a very low expansion potential. Accordingly, soil expansion impacts would be less than significant.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Soils Threshold (c) for the Building D Site and Building E Site: No Impact. The Project would not install septic tanks or alternative wastewater disposal systems. Accordingly, no impact would occur associated with soil compatibility for wastewater disposal systems.	No mitigation is required.	N/A	N/A	N/A	No Impact
Erosion	No mitigation is required.	N/A	N/A	N/A	No Impact

Threshold (a) for the Building D Site and Building E Site: No Impact. The Project site does not contain any active streams or rivers, no streams or rivers are located in close proximity to the Project site, and the Project would not discharge water directly to an active stream or river. The Project would be required to prepare and comply with NPDES permits, SWPPPs, and WQMPs, which would treat and filter runoff to reduce erosion. Therefore, no impact to deposition, siltation, or erosion that may modify the channel of a river or stream or the bed of a lake would occur.					
Erosion Threshold (b) for the Building D Site and Building E Site: Less-than-Significant Impact. Buildout of the Project site would result in an increase in impervious surfaces. Storm water falling on the developed portions of the Project site would be collected and treated on-site before being discharged into the storm drain system to be constructed as part of the Project. Storm water runoff with the potential to result in water erosion would be reduced by the Project and a less-than-significant impact would occur.	No mitigation is required	N/A	N/A	N/A	Less-than-Significant Impact
Wind Erosion and Blowsand from Project either on or off-site Threshold (a) for the Building D Site and Building E Site: Less-than-Significant Impact. The Project site would be exposed to wind erosion during construction, but would be required to implement BMPs as part of the NPDES permit, and would be required to comply with all other applicable regulations related to wind erosion. Following development of the Project site, soils on the developed portions of the Project site would be covered with impervious surfaces and landscaping and no longer exposed to wind; thus, wind erosion and the	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

loss of topsoil would be substantially reduced as compared to existing conditions. Impacts would be less than significant.					
4.7 Greenhouse Gas Emissions					
Summary of Impacts					
Thresholds (a) and (b): Cumulatively Considerable Significant Impact. At Project buildout, the Project's total annual GHG emissions are calculated to be approximately 24,617.57 MTCO2e per year, which exceeds the Riverside County CAP's annual GHG emissions threshold of 3,000 MTCO2e. Thus, Project would result in cumulatively considerable impacts.	**RR-15** The Project's construction activities are required to comply with Title 24 California Code of Regulations (California Building Standards Code) and Title 20 California Code of Regulations (Appliance Energy Efficiency Standards). These regulations establish energy efficiency requirements for new (and altered) buildings and appliances.	Project Applicant; Project Contractors	County of Riverside Building & Safety Department	During Project Construction	Less-than-Significant Impact
	RR-16 The Project is required to comply with Riverside County Ordinance No. 859, which is known as the Water Efficient Landscape Requirements Ordinance. Ordinance No. 859 mandates requirements for ensuring efficient landscapes in new development and reduced water waste in existing landscapes.	Project Applicant; Project Contractors	County of Riverside Building & Safety Department	During Project Construction	
	MM 4.7-1 (Applies to the Building D Site and the Building E Site) Prior to issuance of a building permit, the Project Applicant shall provide documentation to the County of Riverside Building Department demonstrating that the improvements and/or buildings subject to each building permit application include the following measures from the County of Riverside Climate Action Plan (December 2015) Greenhouse Gas Emissions Screening Tables (Appendix F to the Climate Action Plan), as needed to achieve a minimum of 100 points: a) E5.A.1: Enhanced Insulation (rigid wall insulation R-13, roof/attic R-38) – 18 points b) E5.A.2: Enhanced Window Insulation – 8 points c) E5.B.1: Enhanced Duct Insulation (R-8) – 7 points d) E5.B.2: Improved Efficiency HVAC (EER 14/65% AFUE or89 HSPF) – 7 points e) E5.B.4: High Efficiency Water Heater (0.72 Energy Factor) – 16 points	Project Applicant	County of Riverside Building & Safety Department	Prior to Issuance of Building permit	

	f) E5.B.5: All peripheral rooms having at least one window or skylight – 1 point g) E5.B.6: Very High Efficiency Lights (100% of in-unit fixtures are high efficacy) – 14 points h) E5.B.7: Star Commercial Refrigerator (new) – 4 points i) E5.C.1: North/south alignment of building – 6 points j) W1.C.1: Eliminate turf and only drought tolerant plans – 4 points k) W1.D.2: Water efficient toilets/urinals (1.5 gpm) – 3 points l) W.1.D.3: Water efficient faucets (1.28 gpm) – 3 points m) T1.A.2: Car/vanpool program with preferred parking – 2 points n) T4.A.1: Larger parking spaces to accommodate ride-sharing vans – 1 point o) SW2.B.1: Recycle 20% of debris during construction – 6 points Alternatively, the Project Applicant may demonstrate that other Implementation Measures from Appendix F of the County's CAP have been incorporated into the building permit application and/or plans to achieve the required minimum of 100 points.				
4.8 Hazards and Hazardous Materials					
Summary of Impacts					
Hazards and Hazardous Materials Thresholds (a) and (b) for the Building D Site and the Building E Site: Less-than-Significant Impact. During Project construction and operation, mandatory compliance to federal, state, and local regulations would ensure that the Project as proposed on the Building D Site and the Building E Site would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Hazards and Hazardous Materials	No mitigation is required.	N/A	N/A	N/A	No Impact

Threshold (c) for the Building D Site and the Building E Site: No Impact. The Project would not impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan. No emergency facilities exist on the Project site, nor does the Project site serve as an emergency evacuation route.					
Hazards and Hazardous Materials Threshold (d) for the Building D Site and the Building E Site: No Impact. The Building D Site and the Building E Site are not located within one-quarter mile of any existing or planned school. Accordingly, the Project as proposed on the Building D Site and the Building E Site would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.	No mitigation is required.	N/A	N/A	N/A	No Impact
Hazards and Hazardous Materials Threshold (e) for the Building D Site and the Building E Site: No Impact. The Building D Site and the Building E site are not located on any list of hazardous materials compiled pursuant to Government Code Section 65962.5.	No mitigation is required.	N/A	N/A	N/A	No Impact
Airports Threshold (a), (b), and (c) for the Building D Site and the Building E Site: Less-than-Significant Impact. Pursuant to mandatory compliance with Riverside County ALUC conditions of approval, the Project is consistent with the restrictions and requirements of the March Air Reserve Base/Inland Port Land Use Compatibility Plan. As such, the Project would not result in an airport safety hazard for people residing or working in the Project area.	**RR-17** Any outdoor lighting installed shall be hooded or shielded to prevent either the spillage of lumens or reflection into the sky. Outdoor lighting shall be downward facing. **RR-18** The following uses/activities are not included in the proposed Project and shall be prohibited at the site, in accordance with Note 1 on Table 4 of the Mead Valley Area Plan as noted below. a) Any use which would direct a steady light of flashing light or red, white, green, or amber colors associated with airport operations toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach toward a landing at an airport, other than	Project Applicant Project Applicant	County of Riverside Building & Safety Department County of Riverside Building & Safety Department	Prior to issuance of final inspection permits; prior to issuance of occupancy permits. Prior to issuance of final inspection permits; prior to issuance of occupancy permits.	Less-than-Significant Impact

	an FAA-approved navigational signal light or visual approach slope indicator. b) Any use which would cause sunlight to be reflected towards an aircraft engaged in an initial straight climb following takeoff or towards an aircraft engaged in a straight final approach towards a landing at an airport. c) Any use which would generate smoke or water vapor or which would attract large concentrations of birds, or which may otherwise affect safe air navigation within the area. d) Any use which would generate electrical interference that may be detrimental to the operation of aircraft and/or aircraft instrumentation.				
	RR-19 The "Notice of Airport in Vicinity," included in the May 11, 2017 County of Riverside ALUC Staff Report, shall be given to all prospective purchasers of the property and tenants of the buildings, and shall be recorded as a deed notice.	Project Applicant	County of Riverside Building & Safety Department	Prior to the issuance of occupancy permits.	
	RR-20 The proposed detention basins on the site (including water quality management basins) shall be designed so as to provide for a maximum 48-detention period following the conclusion of a storm event for the design storm (may be less, but not more), and to remain totally dry between rainfalls. Vegetation in and around the detention basins that would provide food or cover for bird species that would be incompatible with airport operations shall not be utilized in project landscaping. Trees shall be spaced so as to prevent large expanses of contiguous canopy, when mature.	Project Applicant	County of Riverside Building & Safety Department	Prior to the issuance of grading permits; prior to the issuance of final inspection permits	
	RR-21 The following uses/activities are specifically prohibited: wastewater management facilities; trash transfer stations that are open on one or more sides; recycling centers containing putrescible wastes; and incinerators.	Project Applicant	County of Riverside Building & Safety Department	Prior to the issuance of final inspection permits.	

	RR-22 March Air Reserve Base must be notified of any land use having an electromagnetic radiation component to assess whether a potential conflict with Air Base radio communications could result. Sources of electromagnetic radiation include radio wave transmission in conjunction with remote equipment inclusive of irrigation controllers, access gates, etc.	Project Applicant	County of Riverside Building & Safety Department	Prior to the issuance of final inspection permits.	
	RR-23 The Federal Aviation Administration has conducted aeronautical study of each proposed building (Aeronautical Study Nos. 2017-AWP-2411-OE and 2017-AWP-2412-OE) and has determined that neither marking nor lighting of the proposed structures is necessary for aviation safety. However, if marking and/or lighting for aviation safety are accomplished on a voluntary basis, such marking and/or lighting (if any) shall be maintained in accordance with FAA Advisory Circular 70/7460-1 L Change 1 and shall be maintained in accordance therewith for the life of the Project.	Project Applicant	County of Riverside Building & Safety Department	Prior to issuance of building permits.	
	RR-24 The maximum height of the structure proposed through Plot Plan No. 25838 (Building D) shall not exceed 55 feet above ground level and shall not exceed a maximum elevation at top point (including all roof-mounted appurtenances, if any) of 1,640 feet above mean sea level.	Project Applicant	County of Riverside Building & Safety Department	Prior to the issuance of building permits.	
	RR-25 The maximum height of the structure proposed through Plot Plan No. 25387 (Building E) shall not exceed 55 feet above ground level and shall not exceed a maximum elevation of top point (including all roof-mounted appurtenances, if any) of 1,673 feet above mean se level.	Project Applicant	County of Riverside Building & Safety Department	Prior to the issuance of building permits.	
	RR-26 The maximum height and top point elevations specified above shall not be amended without further review by the Airport Land Commission and the Federal Aviation Administration; provide, however, that reduction in structure height or elevation shall not require further review by the Airport Land Use Commission.	Project Applicant	County of Riverside Building & Safety Department; Airport Land Use Commission; Federal Aviation Administration	Prior to issuance of building permits.	

	RR-27 Temporary construction equipment such as cranes used during actual construction of Building D shall not exceed a height of 55 feet and a maximum elevation of 1,640 feet above mean sea level, unless separate notice is provided to the Federal Aviation Administration through the Form 7460-1 process.	Project Applicant	County of Riverside Building & Safety Department; Federal Aviation Administration	During Project construction activities.	
	RR-28 Temporary construction equipment such as cranes used during actual construction of Building E shall not exceed a height of 55 feet and a maximum elevation of 1,673 feet above mean sea level, unless separate notice is provided to the Federal Aviation Administration through the Form 7460-1 process.	Project Applicant	County of Riverside Building & Safety Department; Federal Aviation Administration	During Project construction activities.	
	RR-29 Within five (5) days after construction of each building reaches its greatest height, FAA Form 7460-2 (Part II), Notice of Actual Construction or Alteration, shall be completed by the Project proponent or his/her designee and e-filed with the Federal Aviation Administration. This requirement is also applicable in the event the Project is abandoned or a decision is made not to construct the structure.	Project Applicant	County of Riverside Building & Safety Department; Federal Aviation Administration	Within five (5) days after construction of each building reaches its greatest height.	
	RR-30 The Federal Aviation Administration has conducted aeronautical studies under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, Part 77 concerning Building D and Building E. The aeronautical studies revealed that the structures do not exceed obstruction standards and would not be met with a hazard to air navigation provided the following condition is met. FAA Form 7460-2, Notice of Actual Construction or Alteration shall be e-filed any time the Project is abandoned or within 5 days after the construction reaches its greatest height (7460-2, Part 2).	Project Applicant	County of Riverside Building & Safety Department; Federal Aviation Administration	Any time the Project is abandoned or within 5 days after construction reaches its greatest height (7460-2, Part 2).	
Airports Threshold (d) for the Building D Site and the Building E Site: No Impact. The Project would have no impact on private aviation facilities. There are no known private airstrips located within the vicinity of the	No mitigation is required.	N/A	N/A	N/A	No Impact

Project site. The Project would have no potential to impact the helipad at the Riverside County Regional Medical Center.					
Hazardous Fire Area Threshold (a) for the Building D Site and the Building E Site: No Impact. The Project site is not located in a wildland fire hazard area. The Project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.	No mitigation is required.	N/A	N/A	N/A	No Impact
4.9 Hydrology and Water Quality					
Summary of Impacts					
Water Quality Threshold (a) for the Building D Site and the Building E Site: Less-than-Significant Impact. Implementation of the Project as proposed on the Building D Site and the Building E Site would not result in a significant alteration of the site's existing drainage pattern and there would be no significant increases in the rates of erosion or siltation on-or off-site.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Water Quality Threshold (b) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project as proposed on the Building D Site and the Building E Site would not violate any water quality standards or waste discharge requirements on a direct or cumulatively considerable basis. The Project is required to prepare and comply with a Storm Water Pollution Prevention Program (SWPPP) to address short-term construction-related water quality issues, and is required to comply with the site-specific Water Quality Management Plans (WQMPs) and their associated Best Management Practices (BMPs).	**RR-31** Prior to issuance of a grading permit, the Project Applicant shall obtain coverage under a National Pollutant Discharge Elimination System (NPDES) permit from the State Water Resources Control Board. Evidence that a NPDES permit has been issued shall be provided to the County of Riverside prior to issuance of a grading permit.	Project Applicant	County of Riverside Building & Safety Department; Riverside County Flood Control and Water Conservation District (RCFCWCD)	Prior to the issuance of a grading permit.	Less-than-Significant Impact
	RR-32 Prior to issuance of a grading permit, the Project Applicant shall prepare a Stormwater Pollution Prevention Plan (SWPPP). Project contractors shall be required to ensure compliance with the SWPPP and shall permit periodic inspection of the construction site by the County of Riverside staff or its designee to confirm compliance.	Project Applicant; Project Contractors	County of Riverside Building & Safety Department; Riverside County Flood Control and Water Conservation District (RCFCWCD)	Prior to the issuance of a grading permit.	
	RR-33 Prior to issuance of a grading permit, the Project Applicant shall prepare and the County of Riverside shall approve a Final Water Quality	Project Applicant or Property Manager	County of Riverside Building & Safety Department; Riverside	Prior to issuance of a grading permit.	

	Management Plan (WQMP). The Project Applicant or its property manager shall be required to ensure compliance with the Final WQMP and shall permit periodic inspection of the Project site by County of Riverside staff or its designee to confirm compliance. **RR-34** Prior to issuance of a grading permit, the Project Applicant shall obtain a National Pollutant Discharge Elimination System (NPDES) permit or qualify for an exemption thereto-for operational activities.	Project Applicant	County Flood Control and Water Conservation District (RCFCWCD) County of Riverside Building & Safety Department; Riverside County Flood Control and Water Conservation District (RCFCWCD)	Prior to issuance of a grading permit.	
Water Quality Threshold (c) for the Building D and the Building E Site: Less-than-Significant Impact. The Project as proposed on the Building D Site and the Building E Site does not propose the installation of any water wells that would extract groundwater. Also, the proposed Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or lowering of the local groundwater table.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Water Quality Threshold (d) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project as proposed on the Building D Site and the Building E Site would not create or contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems, nor would the Project provide substantial additional sources of runoff.	**RR-32** and **RR-33** apply.	See above.	See above.	See above.	Less-than-Significant Impact
Water Quality Threshold (e) for the Building D Site and the Building E Site: No Impact. The Project as proposed on the Building D Site and the Building E Site does not involve the construction of housing and no flood zone areas are located on the Building D Site or on the Building E Site. Therefore, the	No mitigation is required.	N/A	N/A	N/A	No Impact

Project would not place housing in a 100-year flood zone.					
Water Quality Threshold (f) for the Building D Site and the Building E Site: No Impact. The Project site is not located within a 100-year flood hazard area.	No mitigation is required.	N/A	N/A	N/A	No Impact
Water Quality Threshold (g) for the Building D Site and the Building E Site: No Impact. There are no components associated with the proposed Project that would otherwise result in the substantial degradation of water quality.	No mitigation is required.	N/A	N/A	N/A	No Impact
Water Quality Threshold (h) for the Building D Site and the Building E Site: Less-than-Significant Impact. The proposed Project would not result significant environmental effects associated with storm water features such as increased vectors or odors. The Project would comply with the site-specific Water Quality Management Plans (WQMPs) and their associated Best Management Practices (BMPs).	**RR-32** and **RR-33** apply.	See above.	See above.	See above.	Less-than-Significant Impact
Floodplains Threshold (a) for the Building D Site and the Building E Site: Less-than-Significant Impact. Alterations to the drainage characteristics (i.e., flow rate) of the Building D Site and the Building E Site would not substantially increase the rate of surface runoff; thus, the Project would not cause or contribute to flooding on-or-off-site.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Floodplains Threshold (b) for the Building D Site and the Building E Site: Less-than-Significant Impact. Alterations to the drainage characteristics (i.e., flow rate) of the Building D Site and the Building E Site would not result in substantial changes in absorption rates or the amount of surface	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

runoff; thus, the Project would not cause or contribute to flooding on-or-off-site.					
Floodplains Threshold (c) for the Building D Site and the Building E Site: No Impact. The Project as proposed on the Building D Site and the Building E Site would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.	No mitigation is required.	N/A	N/A	N/A	No Impact
Floodplains Threshold (d) for the Building D Site and the Building E Site: No Impact. The Project as proposed on the Building D Site and the Building E Site would not result in changes in the amount of surface water in any water body.	No mitigation is required.	N/A	N/A	N/A	No Impact
4.10 Land Use and Planning					
Summary of Impacts					
Land Use: Threshold (a) for the Building D Site and the Building E Site: Significant Direct and Cumulatively Considerable Impact. The Project site is mostly vacant and undeveloped under existing conditions; therefore, the proposed development of an industrial business park on the site would result in a substantial change to the site's use. The land uses proposed by the Project would not substantially differ from the land uses planned for the property by the existing Riverside County General Plan and Mead Valley Area Plan.	Refer to all mitigation measures presented in this EIR.	Refer to all mitigation measures presented in this EIR.	Refer to all mitigation measures presented in this EIR.	Refer to all mitigation measures presented in this EIR.	Significant and Unavoidable Direct and Cumulatively Considerable Impact
Land Use: Threshold (b) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would develop land within the City of Perris' Sphere of Influence, but because the City of Perris has not applied any land use or pre-zone designations to the Project site, the Project would not affect the City's planned use of the land.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

Planning: Threshold (a) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project proposes to change the zoning designation on portions of the Building D Site and Building E Site to Industrial-Park (I-P) zoning. The change in zone would result in less-than-significant impacts as analyzed throughout the EIR. Development on the property would be consistent with the proposed I-P zoning designation.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Planning: Threshold (b) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would be compatible with the existing, surrounding zoning designations, which are I-P, M-M, and M-SC zoning designations located north, east, and south of the Project site. The Project includes design features (i.e., an open space buffers, screen walls, and landscaping) to ensure compatibility with the existing residentially zoned areas to the west and south of the Project site.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Planning: Threshold (c) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would be compatible with the existing/planned CD-BP and CD-LI land uses located north and east of the Project site. The Project includes design features (i.e., open space buffers, screen walls, and landscaping) to ensure compatibility with the existing/planned residential land uses to the west and south of the Project site.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Planning: Threshold (d) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would be consistent with the land use designations and policies of the Riverside County General Plan and the Mead Valley Area Plan.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Planning: Threshold (e) for the Building D Site and the Building E Site: No Impact. The	No mitigation is required.	N/A	N/A	N/A	No Impact

Project would not physically divide an established community. The Project's improvements to a segment of Ellsworth Street would improve roadway connections in the local area.					
4.11 Noise					
Summary of Impacts					
Airport Noise: Threshold (a) and (b) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would not expose people to excessive noise levels associated with a public airport or public use airport. No private airstrips are located in the vicinity of the Project site. The MARB is located approximately 1.1 miles east of the Project site, but the Project site would not be exposed to aircraft noise greater than the 60 dBA CNEL, which is acceptable for business park uses according to the Riverside County General Plan.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Railroad Noise: Threshold (a) for the Building D Site and the Building E Site: No Impact. The Project does not involve the construction, operation, or use of any railroads. Thus, the Project would not expose people to excessive railroad noise.	No mitigation is required.	N/A	N/A	N/A	No Impact
Highway Noise: Threshold (a) for the Building D Site and the Building E Site: Less-than-Significant Impact. Project-related traffic noise would raise noise levels along the segments of I-215 that receive the greatest volume of Project traffic by 0 dBA to 0.6 dBA. This noise level range is less than significant and not detectible to the human ear. Thus, the Project would not expose people to excessive highway noise.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Other Noise: Threshold (a) for the Building D Site and the Building E Site: No Impact. The Project site does not contain any other aspects that would qualify as "other noise" that has not been addressed by other	No mitigation is required.	N/A	N/A	N/A	No Impact

thresholds. Thus, the Project would not result in other noise.					
Construction-related Noise Effects on or by the Project: Threshold (a), (b), and (c) for the Building D Site and the Building E Site: Significant Direct Impact (Short-Term) and Cumulatively Considerable Impact (Short-Term). Project-related construction activities, including blasting, would result in a direct short-term significant impact to noise-sensitive receivers. Also, in the event that construction activities occur on any properties surrounding the Project site simultaneously with Project-related construction activities, and that also would contribute construction noise to significantly impacted noise-sensitive receivers, a cumulative impact may occur and the Project's construction-related noise contribution to the overall noise level in the Project study area would be cumulatively considerable.	**RR-35** All construction activities shall comply with the County of Riverside Noise Ordinance (Chapter 9.52 of the County of Riverside Code of Ordinances). This requirement shall be noted on all grading and building plans and in bid documents issued to construction contractors. **RR-36** As a Riverside County condition of approval for blasting activities at the Project site, and prior to the issuance of grading permits, a blasting noise and vibration monitoring and abatement plan shall be submitted to and approved by the County of Riverside. The contractor shall be required to comply with the approved plan. a) Pre-blasting inspections shall be offered to property owners within 200 feet of the blast site. b) Existing damage of each structure shall be documented. c) Post-blasting inspections shall be offered to assess any new or additional damage to each structure once blasting activities have ceased for those property owners who accepted pre-blast inspections. d) Property owners within at least 200 feet of the blast site shall be notified via postings on the construction site at least 24 hours before the occurrence of major construction- related noise and vibration impacts (such as grading and rock blasting) which may affect them. e) The County may impose conditions and procedures on the blasting operations as necessary. The construction contractor shall comply with these measures for the duration of the blasting permit. The County may inspect the blast site and materials at any reasonable time. **MM 4.11-1 (Applies to the Building D Site)** Prior to the issuance of grading permits and building permits that would authorize grading and construction activities on the Building D Site, the construction contractor shall install a minimum 6-foot high	Project Applicant; Construction Contractors Project Applicant; Project Construction Contractors Project Applicant; Project Construction Contractors	County of Riverside Building & Safety Department County of Riverside Building & Safety Department County of Riverside Building & Safety Department	Prior to issuance of grading and building permits. Prior to the issuance of grading permits. Prior to the issuance of grading and building permits.	Less-than-Significant Impact

	temporary noise barrier along the southern boundary of the Building D Site. The temporary noise control barrier must present a solid face from top to bottom and must be a minimum of 6 feet high. The temporary noise control barrier shall comply with the following: a) The noise barrier may be constructed using an acoustical blanket (i.e., vinyl acoustic curtains or quilted blankets) attached to the construction site perimeter fence or equivalent temporary fence posts. b) The noise barriers must be maintained and any damage promptly repaired. Gaps, holes, or weaknesses in the barrier or openings between the barrier and the ground shall be promptly repaired. c) The noise control barriers and associated elements shall be completely removed and the site appropriately restored upon the conclusion of the construction activity.				
	MM 4.11-2 (Applies to the Building D Site and the Building E Site) Prior to any issuance of grading and building permits, the County of Riverside shall review grading and building plans to ensure the following notes are included on the plans. Project contractors shall be required to comply with these notes and maintain written records of such compliance that can be inspected by the County of Riverside upon request. a) The construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards. b) The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from the noise sensitive receptors nearest the Project site. c) The construction contractor shall locate equipment staging in the north-central portions of the Project site (in the vicinity of the future Ellsworth Street / Oleander Avenue intersection) to maximize the distance between construction-related noise sources and noise-sensitive receivers nearest the Project site.	Project Applicant; Project Construction Contractors	County of Riverside Building & Safety Department	Prior to the issuance of grading and building permits.	

	d) The construction contractor shall limit haul truck deliveries to the same hours specified by the Riverside County Noise Ordinance for the operation of construction equipment (between the hours of 6:00 a.m. and 6:00 p.m., during the months of June through September, and 7:00 a.m. and 6:00 p.m., during the months of October through May). e) The contractor shall prepare a haul route exhibit and shall design delivery routes to minimize the exposure of sensitive land uses or residential dwellings to delivery truck-related noise.				
Operational-Related Noise Effects on or by the Project: Threshold (a), (b) and (c) for the Building D Site and the Building E Site: Less-than-Significant Impact. Project-related operational impacts would result in a less-than-significant impact to noise-sensitive receivers associated with on-site operational activities with the installation of an 8-foog-high noise attenuation barrier at portions of the southern property boundary as proposed by the Project. The Project's contribution to off-site, transportation-related noise levels along several Oleander Road segments adjacent to and east of the Project site would result in a significant direct impact under Existing + Project and Opening Year traffic conditions. The Project's contribution to roadway noise levels along Oleander Avenue would be less-than-significant and less-than- cumulatively considerable impact under Buildout Year 2035 traffic conditions.	**MM 4.11-3 (Applies to the Building D Site)** Prior to building permit final inspection, the County of Riverside shall verify that a minimum 8-foot high solid noise barrier is constructed along the southwestern and southeastern corners of the Building D Site, adjacent to the truck yard/truck parking area.	Project Applicant: Project Construction Contractors	County of Riverside Building & Safety Department	Prior to building permit final inspection.	On-Site Operational Activity: Less-than-Significant Impact Off-Site Transportation Noise: Significant and Unavoidable under Existing + Project and Opening Year traffic conditions.
	MM 4.11-4 (Applies to the Building D Site and the Building E Site) Prior to building permit final inspection, the County of Riverside shall review building plans to ensure that the following notes are included. Contractors shall be required to comply with these notes and maintain written records of such compliance that can be inspected by the County of Riverside upon request. Additionally, prior to building permit final inspection, the Project's property owner(s) shall provide documentation to the County of Riverside verifying that provisions are made in the builder's lease agreement that inform tenants of the following: a) All on-site operating equipment under the control of the building user that is used in outdoor areas (including but not limited to trucks, tractors, forklifts, and hostlers), shall be operated with	Project Applicant; Project Contractors; Project's Property Owner(s)	County of Riverside Building & Safety Department	Prior to building permit final inspection.	

	properly functioning and well-maintained mufflers. b) Speed bumps are not allowed. Quality pavement conditions shall be maintained on the property that is free of vertical deflection (i.e. speed bumps) to minimize truck noise. **MM 4.11-5 (Applies to the Building D Site and the Building E Site)** Should any of the buildings accommodate a user that requires special noise generators, including but not limited to outdoor compressors, air scrubbers, emergency generators, large HVAC units, or outdoor amplification (speakers), prior to the issuance of a building permit or occupancy permit that would allow installation of the noise generator, an acoustical study shall be prepared to show that noise levels at noise sensitive receivers would not exceed the Riverside County Noise Ordinance operational noise standards for noise-sensitive receivers of 65 dBA nighttime and 45 dBA nighttime.	Project Applicant	County of Riverside Building & Safety Department	Prior to the issuance of a building permit or occupancy permit that would allow installation of the noise generator	
Threshold (d) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would not generate substantial noise or ground-borne vibration during short-term construction and blasting activities or long-term operational activities.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
4.12 Population and Housing					
Summary of Impacts					
Thresholds (a) and (c) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project site contains one mobile home under existing conditions which would be removed as part of the proposed Project. The removal of one mobile home structure would not result in the displacement of substantial numbers of people or existing housing. A less-than-significant impact would occur.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold (b) for the Building D Site and the Building E Site: Less-than-Significant	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

Impact. The Project site is expected to employ approximately 1,221 workers. It is expected that the job opportunities created by the Project would be filled by the existing residents in Riverside County and residents of homes that are already approved for construction but not yet built... Therefore, the Project would not create a demand for additional housing, and impacts would be less-than-significant.					
Threshold (d) for the Building D Site and the Building E Site: No Impact. The Riverside County Redevelopment Agency was dissolved in 2012; therefore, the Project would have no potential to impact a County Redevelopment Project Area. No impact would occur.	No mitigation is required.	N//A	N/A	N/A	No Impact
Threshold (e) for the Building D Site and the Building E Site: No Impact. The Project is an employment-generating use that would not directly cause population growth. Therefore, the Project has no potential to exceed regional or local population projections. No impact would occur.	No mitigation is required.	N/A	N/A	N/A	No Impact
Threshold (f) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would introduce new businesses and infrastructure improvements to the area. The jobs generated by the Project are expected to be filled by existing residents of Riverside County and residents of homes that are already approved for construction but not yet built. In addition, Project-related utility improvements would service the Building D Site and the Building E Site and would not be sized to accommodate unplanned growth on other surrounding parcels. Accordingly, the Project would not induce substantial population growth and impacts would be less than significant.	No mitigation is required,	N/A	N/A	N/A	Less-than-Significant Impact
4.13 Public Services					
Summary of Impacts					

Threshold (a) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would introduce structures, traffic, and workers to the Project site, which would increase the demand for fire protection services provided by the Riverside County Fire Department (RCFD). The increased demand would adversely affect the RCFD's ability to meet its response time goals from Station 59 (located at 21510 Pinewood Street, Perris) and Station No. 90 (located at 333 Placentia Avenue Perris). Although demand would be increased and the RFCD's response time goal of 4:00 minutes would not be met to the Project site, the RCFD's existing fire stations have adequate physical capacity to service the Project. The RCFD does not have plans to construct a new fire station or physically expand fire protection facilities in the Project site's vicinity; therefore, the Project would have no physical environmental effects on fire protection facilities. Increased demand is not an environmental effect under CEQA; thus, impacts are less than significant.	**RR-37** Prior to building permit final inspection, the Project Applicant shall comply with County's Development Impact Fee (DIF) Ordinance (Riverside County Ordinance No. 659), which requires payment of a development mitigation fee to assist in providing revenue that the County can use to improve public facilities and/or equipment, to offset the incremental increase in the demand for fire, police protection, and health care services that would be created by the Project.	Project Applicant	Riverside County Planning Department	Prior to building permit final inspection.	Less-than-Significant Impact
Threshold (b) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would introduce structures, traffic, and workers to the Project site, which would increase the demand for sheriff services provided by the Riverside County Sheriff's Department (RCSD). Service to the Project site is provided by the RCSD Perris Station, and the RCSD has no plans to physically construct or expand a station due to the Project or other growth in the area. As such, the Project would have no physical environmental effects on sheriff facilities. Increased demand is not an environmental effect under CEQA; thus, impacts are less than significant	**RR-37** applies.	See above.	See above.	See above.	Less-than-Significant Impact

Threshold (c) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would not result in or require new or expanded public school facilities and would not result in any direct demand for school facilities. There is no potential for the Project to have a direct physical impact on any school. For these reasons, less-than-significant impacts to school facilities would occur.	**RR-38** Prior to building permit final inspection, the Project Applicant shall comply with provisions California Government Code §§ 65995.5-65998 by payment of required school impact fees to the Val Verde Unified School District, in accordance with the District's Level 1 Fee Schedule.	Project Applicant	Riverside County Planning Department; Val Verde Unified School District	Prior to building final inspection.	Less-than-Significant Impact
Threshold (d) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would not result in or require new or expanded public library facilities and would not result in any direct demand for library space. There is no potential for the Project to have a direct physical impact on any library. For these reasons, less-than-significant impacts to library facilities would occur.		Project Applicant	Riverside County Planning Department	Prior to building permit final inspection.	Less-than-Significant Impact
Threshold (e) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would result in an incremental increase in demand for public health services associated with persons that would be employed at or visit the Project site. However, because the Project would not result in or require the physical construction or alteration of public health facilities to accommodate the Project's demand, impacts to public health facilities would be less than significant.	**RR-37** applies.	See above.	See above.	See above.	Less-than-Significant Impact
4.14 Recreation					
Summary of Impacts					
Parks and Recreation Threshold (a) and (b) for the Building D site and the Building E Site: No Impact. The Project does not propose any type of residential use or other land use that would generate a population that would increase the	No mitigation is required.	N/A	N/A	N/A	No Impact

use of recreation facilities or existing neighborhood or regional parks. Parks would not by physically affected by the Project					
Parks and Recreation Threshold (c) for the Building D Site and the Building E Site: No Impact. The Project does not propose any type of residential use and is not located within a Community Service Area (CSA) or recreation and park district with a Community Parks and Recreation Plan (Quimby fees).	No mitigation is required.	N/A	N/A	N/A	No Impact
Recreational Trails Threshold (d) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would not physically impact a recreational trail. Also, the Project would provide easements for community segments along Oleander Avenue and Ellsworth Street, as called for by the Mead Valley Area Plan. Environmental effects resulting from ground disturbance in the trail easement areas is evaluated as an inherent part of the Project throughout this EIR and in no cases are significant effects identified specifically related to the trail easements.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
4.15 Transportation and Traffic					
Summary of Impacts					
Threshold (a) for the Building D Site and the Building E Site: Significant Cumulatively Considerable Impact. The Project would contribute to LOS deficiencies at numerous Project study area intersections under the Opening Year (2017) plus Cumulative (E+A+P+C) and Horizon Year (2035) traffic scenarios.	**RR-39** Project construction activities are required to comply with the California Manual on Uniform Traffic Control Devices, which specify that temporary traffic controls shall be provided during construction, such as a flag person, during all phases of construction to facilitate the flow of construction traffic on streets abutting the Project site. To implement this requirement, the requirement to comply with the temporary traffic control plan shall be noted on all grading and building plans and also shall be specified in bid documents issued to prospective construction contractions, including the following notes. • Delivery trucks shall use the most direct route between the construction site and the	Project Applicant; Construction Contractors	County of Riverside Transportation Department	Prior to the issuance of grading and building permits.	Significant and Unavoidable Cumulatively Considerable Impact

	I-215 Freeway via Harley Knox Boulevard and Harvill Avenue; • Construction traffic during the AM peak hour (7:00am-9:00am) and PM peak hour (4:00pm-6:00pm) shall be minimized. The construction contractor shall assure that construction-related trips (passenger cars and trucks) do not exceed 138 trips in the AM peak hour and 151 trips in the PM peak hour (inbound and outbound combined). The construction contractor shall be responsible for periodic monitoring and shall be required to supply the County of Riverside with monitoring records upon the County's request.				
	RR-40 Prior to issuance of building permits, the Project shall comply with the County of Riverside Development Impact Fee (DIF) program, which requires the Project Applicant to pay a fee to the County (less any fee credits), a portion of which is used to fund local roadway improvements.	Project Applicant	County of Riverside Transportation Department	Prior to the issuance of building permits.	
	RR-41 Prior to issuance of building permits, the Project shall comply with the Transportation Uniform Mitigation Fee (TUMF) program as administered by the County of Riverside, which requires the Project Applicant to pay a fee that is used to fund regional transportation improvements.	Project Applicant	County of Riverside Transportation Department	Prior to the issuance of building permits	
	MM 4.15-1 (Applies to the Building D Site and the Building E Site) Prior to issuance of building permits, the Project Applicant shall make a fair share monetary contribution to the County of Riverside for improvements to the Ellsworth Street / Oleander Avenue intersection which are not included in the Riverside County Development Impact Fee (DIF) program or the Transportation Uniform Mitigation Fee (TUMF) program, as listed below: • Install a traffic signal; • Install southbound left turn lane; • Install southbound through lane; and	Project Applicant	County of Riverside Transportation Department	Prior to the issuance of building permits	

	• Install southbound shared through-right turn lane. The Project's fair share of the above-listed improvements is 5.4%. **MM 4.15-2 (Applies to the Building D Site and the Building E Site)** Prior to issuance of building permits, the Project Applicant shall make a fair share monetary contribution to the County of Riverside, to be held in trust, for improvements to the Harvill Avenue / Harley Knox Boulevard intersection that are not included in the Riverside County Development Impact Fee (DIF) program or the Transportation Uniform Mitigation Fee (TUMF) program, as listed below: • Modify traffic signal to implement overlap phasing on the northbound right turn lanes; and • Modify traffic signal to implement overlap phasing on the eastbound right turn lane. The Project's fair share of the above-listed improvements is 5.0%.	Project Applicant	County of Riverside Transportation Department	Prior to the issuance of building permits.	
<u>Threshold (b) for the Building D Site and the Building E Site: Significant and Unavoidable Cumulatively Considerable Impact.</u> All state highway system facilities in the Project study area are under the jurisdiction of Caltrans. As such, the County of Riverside cannot assure the construction of improvements to state highway facilities that may be needed to improve traffic flow. Furthermore, Caltrans does not have any funding mechanism in place to allow development projects to contribute a fair-share payment to contribute to future improvements and off-set cumulatively considerable traffic impacts. Thus, there is no assurance that planned improvements will be in place prior to the time that the Project begins to contribute traffic to the facilities.	**MM 4.15-3 (Applies to the Building D Site and the Building E Site)** In the event that Caltrans establishes a fair-share funding program for cumulatively considerable impacts to freeway system segments caused by private development projects that would be applicable to the Project site, prior to the issuance of a building permit for the Project, the Project Applicant shall provide evidence to Riverside County that such fair-share fee has been paid. If Caltrans has not established such a fee prior to building permit issuance, the Project Applicant shall have no further obligation associated with this mitigation measure.	Project Applicant	County of Riverside Transportation Department	Prior To The Issuance of a Building Permit	Significant and Unavoidable Cumulatively Considerable Impact

Accordingly, the Project's contribution of traffic to the freeway facilities listed below under E+A+P+C and/or Horizon Year (2035) conditions would represent a significant and unavoidable cumulative impact					
Threshold (c) for the Building D Site and the Building E Site: No Impact. There is no potential for the Project to change air traffic patterns or create substantial air traffic safety risks.	No mitigation is required.	N/A	N/A	N/A	No Impact.
Threshold d) for the Building D Site and the Building E Site: No Impact. There is no potential for the Project to alter waterborne, rail, or air traffic.	No mitigation is required.	N/A	N/A	N/A	No Impact
Threshold (e) for the Building D Site and the Building E Site: Less-than-Significant Impact. The proposed Project would not substantially increase transportation safety hazards due to design features or incompatible uses.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold (f) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would not cause a significant need for new or altered maintenance of roads.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold (f) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would not cause a significant need for new or altered maintenance of roads.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold (g) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would not cause a substantial adverse effect upon circulation during the Project's construction phase.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold (h) for the Building D Site and the Building E Site: Less-than-Significant Impact. Adequate emergency access would be provided to the Project site during both short-term construction and long-term operation. The Project would not result in	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

inadequate emergency access to the site or surrounding properties.					
Threshold (i) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project provides for community trail easements along the Project site's frontage with Oleander Avenue and Ellsworth Street, as called for by the planned Riverside County trail network. The Project is designed to minimize potential conflicts with non-vehicular means of transportation.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
4.16 Utilities and Service Systems					
Summary of Impacts					
Thresholds (a) and (b) for the Building D Site and the Building E Site: Less-Than-Significant Impact. The EMWD has sufficient capacity to serve the Project with water in light of its existing and projected commitments, and no new entitlements are required. The Project would not have an adverse effect on the ability of the EMWD to implement its Water Shortage Contingency Plan prepared in response to Executive Order B-29-15. Impacts associated with the installation of on-site and off-site water infrastructure are evaluated throughout the EIR and mitigation measures are identified for construction-related effects that would reduce construction-phase impacts to the maximum feasible extent. There would be no significant impacts specifically related to the installation of water infrastructure beyond the overall construction-related effects of the Project as a whole.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Thresholds (c) and (d) for the Building D Site and the Building E Site: Less-Than-Significant Impact. The proposed Project's wastewater generation would not exceed the capacity of the EMWD's Perris Valley Regional Water Reclamation Facility (PVWRF) and payment of mandatory	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

connection fees and surcharges established by the EMWD's Wastewater Ordinance No. 59.6 would reduce the Project's incremental effect to a level of less than significant. Additionally, impacts associated with the construction of the proposed sewer facilities are an inherent part of the Project's construction process and environmental effects associated with the Project's construction phase have been evaluated throughout this EIR. Mitigation measures have been identified to reduce construction-related impacts to the maximum feasible extent, and there are no environmental impacts attributable solely to the Project's sewer connections. Impacts would be less than significant.					
Threshold (e) for the Building D Site and the Building E Site: Less-Than-Significant Impact. The proposed Project's solid waste disposal needs can be accommodated by existing Riverside County Waste Management Department (RCWMD) landfills (i.e., Badlands Landfill and/or El Sobrante Landfill), and the Project would be fully consistent with the Countywide Integrated Waste Management Plan (CIWMP) and its requirements. Project impacts would be less than significant.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold (f) for the Building D Site and the Building E Site: Less-Than-Significant Impact. The Project would be required to comply with all applicable solid waste statutes and regulations; as such, impacts related to solid waste statutes and regulations would be less than significant.	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact
Threshold (g) for the Building D Site and the Building E Site: Less-Than-Significant Impact. Impacts associated with the construction of electricity, natural gas, communications systems, storm water drainage, street lighting, public facilities maintenance, and other governmental	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

services are an inherent part of the Project's construction process and environmental effects associated with the Project's construction phase have been evaluated throughout this EIR. Mitigation measures have been identified to reduce construction-related impacts to the maximum feasible extent. There are no unique conditions associated with the Project's proposed utility service connections that would result in impacts to the environment that have not already been addressed by this EIR.					
4.17 Paleontological Resources					
Summary of Impacts					
Paleontological Resources: Threshold (a) for the Building D Site: Significant Direct and Cumulatively Considerable Impact. Construction activities on the Building D Site have the potential to unearth and adversely impact paleontological resources that may be buried beneath the ground in Quaternary very old alluvial fan sediments located in the northeastern corner of the Building D Site mapped as having "High B" paleontological sensitivity. Impacts would be significant on a direct and cumulatively considerable basis if discovered resources are significant and are not properly identified and treated.	**MM 4.17-1 (Applies to the Building D Site)** For grading activities that will occur greater than 4.0 feet in depth in Quaternary very old alluvial fan sediments located in the northeast portion of the Building D Site, the County of Riverside shall require that a Paleontological Resource Impact Mitigation Program (PRIMP) be implemented by a qualified paleontologist. The PRIMP shall be consistent with current regulations implemented by the County of Riverside and the proposed guidelines of the Society of Vertebrate Paleontology. The PRIMP shall be prepared by a qualified paleontologist and submitted to the County of Riverside prior to the issuance of a grading permit for the Building D Site. The PRIMP shall outline the locations where monitoring by a qualified paleontologist would be required and the protocols to be followed in the event that fossils are discovered to ensure that significant resources are properly identified and treated and that no significant paleontological resource, site, or unique geologic feature is destroyed. The protocols documented in the PRIMP are required to be followed.	Project Applicant; Project Paleontologist	Riverside County Planning Department	During grading activities that will occur greater than 4.0 feet in depth in Quaternary very old alluvial fan sediments located in the northeast portion of the Building D Site.	Less-than-Significant Impact
Paleontological Resources: Threshold (a) for the Building E Site: Less-than-Significant Impact. The Project as proposed on the Building E Site would not directly or	No mitigation is required.	N/A	N/A	N/A	Less-than-Significant Impact

indirectly destroy a unique paleontological resource, or site, or unique geologic feature.					

1.0 INTRODUCTION

1.1 PURPOSES OF CEQA AND THIS EIR

As stated by the California Environmental Quality Act (CEQA) Guidelines Section (§) 15002(a), the basic purposes of CEQA are to:

- Inform governmental decision makers and the public about the potential, significant environmental effects of proposed government actions (including the discretionary approval of private development projects);
- Identify the ways that environmental damage can be avoided or significantly reduced;
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and

  If a project will be approved involving significant environmental effects,

- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose.

This Environmental Impact Report (EIR No. 546) is an informational document that represents the independent judgment of the County of Riverside (as the Lead Agency) and evaluates the physical environmental effects that could result from planning, constructing, and operating the proposed Knox Business Park Building D and Knox Business Park Building E. Because these projects are adjacent and are proposed by the same Project Applicant, CEQA requires that they be evaluated as a single project. CEQA prohibits piecemeal environmental review of projects with related impacts that could be considered a single project. Both properties are collectively referred to in this EIR as the "Project site" and individually as the "Building D Site" and the "Building E Site." Both projects are collectively referred to in this EIR as the "Project" and individually as the "Building D Project" and the "Building E Project."

Governmental approvals requested by the Project Applicant from the County of Riverside include General Plan Amendment Nos. 1151 and 1152, Change of Zone Nos. 7872 and 7873, Lot Line Adjustment No. 5524, Tentative Parcel Map Nos. 36950 and 36962, Plot Plan Nos. 25837 and 25838; other related discretionary and administrative actions also may be required to implement the Project evaluated in this EIR.

As a first step in the CEQA compliance process, the County of Riverside completed an Initial Study pursuant to CEQA Guidelines § 15063 to determine if the Project could have a significant effect on the environment. The Initial Study determined the Project has the potential to result in significant environmental effects, and a Project EIR, as defined by CEQA Guidelines § 15161, is required. As stated in CEQA Guidelines § 15161, a Project EIR should "…focus primarily on the changes in the

environment that would result from the development project," and "…examine all phases of the project including planning, construction, and operation."

Accordingly, and in conformance with CEQA Guidelines § 15121(a), the purposes of this Project EIR are to: (1) disclose information by informing public agency decision makers and the public generally of the significant environmental effects associated with all phases of the Project, (2) identify possible ways to minimize or avoid those significant effects, and (3) to describe a reasonable range of alternatives to the Project that would feasibly attain most of the basic Project objectives but would avoid or substantially lessen its significant environmental effects.

1.2 SUMMARY OF THE PROJECT EVALUATED BY THIS EIR

For purposes of this EIR, the term "Project" refers to the discretionary actions required to implement the Knox Business Park Buildings D Project and Building E Project as proposed and all of the activities associated with its implementation including planning, construction, and ongoing operation of two proposed warehouse buildings (Buildings D and E). The Project site is comprised of two adjacent properties located south of Oleander Avenue that are separated by Ellsworth Street (also referred to as "Decker Road" throughout this EIR). The Building D Site comprises approximately 37.1 gross acres east of Ellsworth Street and the Building E Site comprises approximately 21.5 gross acres west of Ellsworth Street, for a total Project site area of approximately 58.6 acres. The Building D Site is proposed to contain a business park warehouse building with a maximum of 702,645 s.f. of building space (677,645 s.f. of warehouse floor space served by loading docks, 10,000 s.f. of mezzanine office space, and 15,000 s.f. of ground floor office space). The Building E Site is proposed to contain a business park warehouse building with a maximum of 410,982 s.f. of building space (395,982 s.f. of warehouse floor space served by loading docks and 15,000 s.f. of ground floor office space). The Project also proposes roadway improvements and off-site utility connections.

The Project Applicant proposes the following discretionary actions, which are under consideration by the County of Riverside:

❑ Building D Applications

- **General Plan Amendment (GPA 1151):** The Building D Site is designated "Community Development-Light Industrial (CD-LI)" and "Community Development-Business Park (CD-BP)" by the Riverside County General Plan under existing conditions. GPA 1151 would change the land use designation of the portion of the property designated CD-BP to CD-LI, so that the entire Building D Site is designated CD-LI.

- **Change of Zone No. 7872 (CZ 7872):** The Building D Site is zoned "Manufacturing – Medium (M-M)," "Rural Residential (R-R)," and "Industrial Park (I-P)" under existing conditions. CZ 7872 would change the zoning designation of the portions of the property zoned M-M and R-R to I-P, so that the entire Building D Site is zoned I-P.

- **Tentative Parcel Map No. 36950 (PM 36950):** PM 36950 would combine the property's four existing parcels into a single, approximately 34.5-net-acre parcel and would dedicate approximately 2.6 acres to the County of Riverside as public right-of-way (i.e., frontage improvements to Ellsworth Street and Oleander Avenue). In addition, PM 36950 identifies the locations of proposed utility infrastructure improvements.

- **Plot Plan No. 25838 (PP 25838):** PP 25838 would provide for the development of one business park warehouse building containing 702,645 s.f. of building space (677,645 s.f. of warehouse floor space, 15,000 s.f. of ground floor office space, and 10,000 s.f. of mezzanine office space). PP 25838 includes a land use plan, architectural plans, and landscape design for the Building D Site.

❑ Building E Applications

- **General Plan Amendment No. 1152 (GPA 1152):** The Building E Site is designated "Community Development-Business Park (CD-BP)" by the Riverside County General Plan under existing conditions. GPA 1152 would change the land use designation of the property to "Community Development – Light Industrial (CD-LI)".

- **Change of Zone No. 7873 (CZ 7873):** The Building E Site is zoned "Rural Residential 1/2-Acre Lot Sizes (R-R-1/2)," and "Industrial Park (I-P)" under existing conditions. CZ 7873 would change the zoning designation on the portion of the property zoned R-R-1/2 to I-P so that the entire Building E Site is zoned I-P.

- **Tentative Parcel Map No. 36962 (PM 36962):** PM 36962 would combine the property's three existing parcels into a single, approximately 19.5-net-acre parcel and would dedicate approximately 2.0 acres to the County of Riverside as public right-of-way (i.e., frontage improvements to Ellsworth Street and Oleander Avenue). In addition, PM 36962 identifies the locations of proposed utility infrastructure improvements.

- **Plot Plan No. 25837 (PP 25837)**: PP 25837 would provide for the development of one business park warehouse building containing 410,982 s.f. of building space (395,982 s.f. of warehouse floor space and 15,000 s.f. of ground floor office space). PP 25837 includes a land use plan, architectural plans, and landscape design for the Building E Site.

1.3 LEGAL AUTHORITY FOR THIS EIR

This EIR has been prepared in accordance with all criteria, standards, and procedures of CEQA (California Public Resource Code § 21000 *et seq.*) and the CEQA Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3, § 15000 *et seq.*).

Pursuant to CEQA § 21067 and CEQA Guidelines Article 4 and § 15367, the County of Riverside is the Lead Agency under whose authority this EIR has been prepared. "Lead Agency" refers to the public agency that has the principal responsibility for carrying out or approving a project. Serving as

the Lead Agency and before taking action to approve the Project, the County of Riverside has the obligation to: (1) ensure that this EIR has been completed in accordance with CEQA; (2) review and consider the information contained in this EIR as part of its decision making process; (3) make a statement that this EIR reflects the County of Riverside's independent judgment; (4) ensure that all significant effects on the environment are eliminated or substantially lessened where feasible; and, if necessary (5) make written findings for each unavoidable significant environmental effect stating the reasons why mitigation measures or project alternatives identified in this EIR are infeasible and citing the specific benefits of the proposed Project that outweigh its unavoidable adverse effects (CEQA Guidelines §§ 15090 through 15093).

Pursuant to CEQA Guidelines §§ 15040 through 15043 and upon completion of the CEQA review process, the County of Riverside will have the legal authority to do any of the following:

- Approve the Project;
- Require feasible changes in any or all activities involved in the Project in order to substantially lessen or avoid significant effects on the environment;
- Deny approval of the Project, if necessary, in order to avoid one or more significant effects on the environment that would occur if the Project was approved as proposed; or
- Approve the Project even through the Project would cause a significant effect on the environment if the County makes a fully informed and publicly disclosed decision that: 1) there is no feasible way to lessen the effect or avoid the significant effect; and 2) expected benefits from the Project will outweigh significant environmental impacts of the Project.

This EIR fulfills the CEQA environmental review requirements for the proposed General Plan Amendment Nos. 1151 and 1152, Change of Zone Nos. 7872 and 7873, Tentative Parcel Map Nos. 36950 and 36962, and Plot Plan Nos. 25837 and 25838, and all other governmental discretionary and administrative actions related to the Project.

1.4 RESPONSIBLE AND TRUSTEE AGENCIES

The California Public Resource Code (§ 21104) requires that all EIRs be reviewed by responsible and trustee agencies (see also CEQA Guidelines § 15082 and § 15086(a)). As defined by CEQA Guidelines § 15381, "the term 'Responsible Agency' includes all public agencies other than the Lead Agency which have discretionary approval power over the project." A Trustee Agency is defined in CEQA Guidelines § 15386 as "a state agency having jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California."

For the proposed Project, the California Department of Fish and Wildlife (CDFW) is identified as a Trustee Agency that is responsible for the protection of California's fish and wildlife resources. The Santa Ana Regional Water Quality Control Board (RWQCB) is identified as a Trustee Agency that is responsible for the protection of California's water resources. The CDFW and Santa Ana RWQCB

are also Responsible Agencies for any discretionary actions that these entities are requested to take related to the proposed Project. The CDFW is responsible for issuance of Streambed Alteration Agreements (California Fish and Game Code 1600 *et seq*) and California Endangered Species Act Permits for Incidental Take of Endangered, Threatened, and/or Candidate species (California Fish and Game Code Sections 2080 and 2080.1). The Santa Ana RWQCB is responsible for issuance of National Pollutant Discharge Elimination System (NPDES) Permits to ensure that during and after the construction of development projects, water flows do not result in siltation, other erosional actions, or degradation of surface or subsurface water quality. Other known Responsible Agencies for the Project include the Riverside County Airport Land Use Commission (RCALUC) and the Eastern Municipal Water District (EMWD). The RCALUC is responsible for determining consistency with the Riverside County Airport Land Use Plan; the Project site is located within the influence area of March Air Reserve Base (MARB). EMWD is responsible for approval of a Water Supply Assessment (WSA) as well as approvals of domestic water and sewer system designs; the Project site is located within EMWD's water and sewer service area.

1.5 EIR SCOPE, FORMAT, AND CONTENT

1.5.1 EIR SCOPE

As a first step in complying with the procedural requirements of CEQA, Riverside County completed an Initial Study to preliminarily identify the environmental issue areas that may be adversely impacted by the Project. Following completion of the Initial Study, the County filed a Notice of Preparation (NOP) with the California Office of Planning and Research (State Clearinghouse) to indicate that an EIR would be prepared to evaluate the Project's potential to impact the environment. The NOP was filed with the State Clearinghouse and distributed to Responsible Agencies, Trustee Agencies, and other interested parties on August 31, 2015, for a 30-day public review period. The NOP was distributed for public review to solicit responses to help the County identify the full scope and range of potential environmental concerns associated with the Project so that these issues could be fully examined in this EIR. In addition, a publicly-noticed EIR Scoping Meeting was held at Riverside County Administrative Building on September 14, 2015, which provided members of the general public an opportunity to comment on the scope and range of environmental issues to be addressed in this EIR.

As a result of the Initial Study and in consideration of all comments received by the County on the NOP and during the Scoping Meeting, this EIR evaluates the Project's potential to cause adverse effects to the following environmental issue areas:

- Aesthetics
- Agriculture and Forestry
- Cultural Resources
- Greenhouse Gas Emissions
- Hydrology/ Water Quality
- Noise
- Air Quality
- Biological Resources
- Geology/Soils
- Hazards/ Hazardous Materials
- Land Use/ Planning
- Population/ Housing

- Public Services
- Transportation/Traffic
- Energy Conservation
- Mandatory Findings of Significance
- Recreation (Trails)
- Utilities/ Service Systems
- Paleontological Resources

The Initial Study, NOP, and written comments received by the County during the NOP public review period are provided in *Technical Appendix A* to this EIR. Substantive issues raised in response to the NOP are summarized below in Table 1-1, *Summary of NOP Comments.* The purpose of this table is to present the primary environmental issues of concern raised in comments submitted by public agencies and the public at-large during the NOP review period. The table is not intended to list every comment received by the County during the NOP review period. Regardless of whether or not a comment is listed in the table, all applicable comments received in responses to the NOP are addressed in this EIR.

The Initial Study analyzed the version of the proposed Project that was on file with Riverside County at the time of NOP issuance. Since that time, the Project Applicant has revised the proposed Building E applications to reduce the size of the Building E Site and the business park warehouse building proposed on the Building E Site. These modifications did not change the scope of this EIR, as determined by the Initial Study. Some of the comments received by the County on the NOP related to potential land use compatibility issues with property to the west, which have been assuaged by the changes that the Applicant has since made to the Building E applications.

The Lead Agency has not identified any issues of controversy associated with the proposed Project evaluated in this EIR, after consideration of all comments received in response to the NOP.

Table 1-1 Summary of NOP Comments

COMMENTER	DATE	COMMENTS	LOCATION IN EIR WHERE COMMENT(S) ADDRESSED
California Department of Fish and Wildlife	September 23, 2015	– EIR should inventory and assess impacts to sensitive habitats, flora fauna, riparian areas, wetlands, and other biological resources within and adjacent to the Project's physical disturbance area. – EIR should include information on the regional setting. – EIR should analyze potential indirect impacts to biological resources from lighting, noise, human activity, and wildlife-human interactions.	– Subsection 4.4, *Biological Resources*

Table 1-1 Summary of NOP Comments

COMMENTER	DATE	COMMENTS	LOCATION IN EIR WHERE COMMENT(S) ADDRESSED
		– Request for mitigation measures for Project-related impacts to biological resources. – Provides information on the California Endangered Species, Act, the Western Riverside County MSHCP, the Stephens' Kangaroo Rat HCP, and the California Lake and Streambed Alteration Program.	
City of Riverside Community & Economic Development	September 30, 2015	– Request for the City of Riverside Traffic and Engineering Division of Public Works review the scope of the Traffic Impact Analysis. – Request that the Project's traffic impact analysis analyze existing congestion, potential Project impacts to I-215, truck traffic impacts to the City of Riverside, and provide appropriate mitigation measures for any significant impacts.	– Informational Comment. – Subsection 4.15, *Transportation and Traffic*
Lozeau/Drury LLP	October 2, 2015	– Acknowledged receipt of NOP and requested notices of CEQA actions and notices of any public hearings.	– Informational Comment
Verbal Comments from the Scoping Meeting	September 14, 2015	– EIR should study air emissions from vehicles that would access the site. – Acknowledgement that a General Plan Amendment and Rezone are needed to implement the Project. EIR should analyze compatibility with adjacent land uses, including residences, schools, trails, and animal keeping. – EIR should analyze drainage patterns, traffic patterns, cumulative traffic effects from projects located east of I-215, potential increases in noise, and the potential use of hazardous materials.	– Subsection 4.2, *Air Quality* – Section 3.0, *Project Description;* Subsection 4.10, *Land Use and Planning* – Subsection 4.9, *Hydrology/Water Quality*; Subsection 4.15, *Transportation and Traffic*; Subsection 4.8, *Hazards and Hazardous Materials*

1.5.2 EIR FORMAT AND CONTENT

This EIR contains all of the information required to be included in an EIR as specified by the CEQA Statutes and Guidelines (California Public Resources Code, § 21000 *et. seq*. and California Code of Regulations, Title 14, Chapter 5). CEQA requires that an EIR contain, at a minimum, certain specified content. Table 1-2, *Location of CEQA Required Topics*, provides a quick reference in locating the CEQA-required sections within this document.

Table 1-2 Location of CEQA Required Topics

CEQA REQUIRED TOPIC	CEQA GUIDELINES REFERENCE	LOCATION IN THIS EIR
Table of Contents	§ 15122	Table of Contents
Summary	§ 15123	Section S.0
Project Description	§ 15124	Section 3.0
Environmental Setting	§ 15125	Section 2.0
Consideration and Discussion of Environmental Impacts	§ 15126	Section 4.0
Significant Environmental Effects Which Cannot be Avoided if the Proposed Project is Implemented	§ 15126.2(b)	Section 4.0 & Subsection 5.1
Significant Irreversible Environmental Changes Which Would be Caused by the Proposed Project Should it be Implemented	§ 15126.2(c)	Subsection 5.2
Growth-Inducing Impact of the Proposed Project	§ 15126.2(d)	Subsection 5.3
Consideration and Discussion of Mitigation Measures Proposed to Minimize Significant Effects	§ 15126.4	Section 4.0 & Table S-1
Consideration and Discussion of Alternatives to the Proposed Project	§ 15126.6	Section 6.0
Effects Not Found to be Significant	§ 15128	Subsection 5.5
Organizations and Persons Consulted	§ 15129	Section 7.0 & Technical Appendices
Discussion of Cumulative Impacts	§ 15130	Section 4.0
Energy Conservation	Appendix F	Subsection 5.4

In summary, the content and format of this EIR is as follows:

- **Section S.0, Executive Summary,** provides an overview of the EIR document and CEQA process. The Project, including its objectives, is described, and the location and regional setting of the Project site is documented. In addition, the Executive Summary identifies the potential alternatives to the proposed Project as required by CEQA. Finally, the Executive Summary provides a summary of the Project's impacts, mitigation measures, and conclusions, in a table that forms the basis of the EIR's Mitigation, Monitoring, and Reporting Program (MMRP).

- **Section 1.0, Introduction,** provides introductory information about the CEQA process and the responsibilities of the County of Riverside, serving as the Lead Agency for this EIR.

- **Section 2.0, Environmental Setting,** describes the environmental setting, including descriptions of the Project site's physical conditions and surrounding context. The existing setting is defined as the condition of the Project site and surrounding area at the approximate date this EIR's NOP was released for public review (August 31, 2015).

- **Section 3.0, Project Description,** serves as the EIR's Project Description for purposes of CEQA and contains a level of specificity commensurate with the level of detail proposed by the Project, including the summary requirements pursuant to CEQA Guidelines § 15123.

- **Section 4.0, Environmental Analysis**, provides an analysis of potential direct, indirect, and cumulative impacts that may occur with implementation of the proposed Project. A conclusion concerning significance is reached for each discussion; mitigation measures are presented as warranted. The environmental changes identified in Section 4.0 and throughout this EIR are referred to as "effects" or "impacts" interchangeably. The CEQA Guidelines also identify the terms "effects" and "impacts" as being synonymous (CEQA Guidelines § 15358). In the environmental analysis subsections of Section 4.0, the existing conditions are disclosed that are pertinent to the subject area being analyzed, accompanied by a specific analysis of physical impacts that may be caused by implementation of the proposed Project. The analyses are based in part upon technical reports that are appended to this EIR. Information also is drawn from other sources of analytical materials that directly or indirectly relate to the proposed Project and cited in Section 7.0, *References*. Where the analysis demonstrates that a physical adverse environmental effect may or would occur without undue speculation, feasible mitigation measures are recommended to reduce or avoid the significant effect. In most cases, implementation of the mitigation measures would reduce the adverse environmental impact to below a level of significance. If mitigation measures are not available or feasible to reduce an identified impact to below a level of significance, the environmental effect is identified as a significant and unavoidable adverse impact, for which a statement of overriding considerations would need to be adopted by the County of Riverside pursuant to CEQA Guidelines § 15093.

- **Section 5.0, Other CEQA Considerations**, includes specific topics that are required by CEQA. These include a summary of the Project's significant and unavoidable environmental

effects, a discussion of the significant and irreversible environmental changes that would occur should the Project be implemented, an analysis of the Project's energy consumption, as well as potential growth-inducing impacts of the proposed Project. Section 5.0 also includes a discussion of the potential environmental effects that were found not be significant during this EIR's Initial Study and NOP process and that, therefore, do not require a detailed evaluation in this EIR.

- **Section 6.0, Project Alternatives,** describes and evaluates potential alternatives to the proposed Project that could reduce or avoid the Project's adverse environmental effects, while still achieving the Project's objectives. CEQA does not require an EIR to consider every conceivable alternative to the Project but rather the consideration of a reasonable range of alternatives that will foster informed decision making and public participation.

- **Section 7.0, References,** cites all reference sources used in preparing this EIR and lists the agencies and persons that were consulted in preparing this EIR. Section 7.0 also lists the persons who authored or participated in preparing this EIR.

- **Technical Appendices.** CEQA Guidelines § 15147 states that the "information contained in an EIR shall include summarized…information sufficient to permit full assessment of significant environmental impacts by reviewing agencies and members of the public," and that the "placement of highly technical and specialized analysis and data in the body of an EIR shall be avoided." Therefore, the detailed technical studies, reports, and supporting documentation that were used in preparing this EIR are bound separately as Technical Appendices. The Technical Appendices are available for review at the Riverside County Planning Department, 4080 Lemon Street, 12th Floor, Riverside, California 92501, during the County's regular business hours or can be requested in electronic form by contacting the County's Planning Department. The individual technical studies, reports, and supporting documentation that comprise the Technical Appendices are as follows:

  A: Initial Study, Notice of Preparation, and Written Comments on the NOP
  B1: Air Quality Impact Analysis
  B2: Mobile Source Health Risk Assessment
  C1: Building D MSHCP Habitat Assessment/Constraints Analysis
  C2: Building D Burrowing Owl Survey
  C3: Building D Jurisdictional Delineation
  C4: Building E MSHCP Habitat Assessment/Constraints Analysis
  C5: Building E Burrowing Owl Survey
  C6: Building E Jurisdictional Delineation
  C7: Building D Determination of Biologically Equivalent or Superior Preservation
  C8: Building E Determination of Biologically Equivalent or Superior Preservation
  D1: Building D Phase I and II Cultural Resources Assessment
  D2: Building E Phase I and II Cultural Resources Assessment
  D3: Building D Paleontological Resource Assessment

D4: Building E Paleontological Resource Assessment
E1: Building D Geotechnical Study
E2 Building D Supplementary Geotechnical Report
E3: Building E Geotechnical Study
E4: Building E Supplementary Geotechnical Report
F: Greenhouse Gas Analysis
G1: Building D Phase I Environmental Site Assessment,
G2: Building E Phase I Environmental Site Assessment
H: Hydrology and Water Quality Information
I: Noise Impact Analysis
J1: Traffic Impact Analysis
J2: Supplemental Basic Freeway Segment Analysis
K: Water Supply Assessment
L: Energy Analysis Report
M: General Plan Consistency Analysis
N: Written Correspondence

- **Documents Incorporated by Reference.** CEQA Guidelines § 15150 allows for the incorporation "by reference all or portions of another document…[and is] most appropriate for including long, descriptive, or technical materials that provide general background but do not contribute directly to the analysis of a problem at hand." Documents, analyses, and reports that are incorporated into this EIR by reference are listed in Section 7.0, *References*, of this EIR. The purpose of incorporation by reference is to assist the Lead Agency in limiting the length of an EIR. Where this EIR incorporates a document by reference, the document is identified in the body of the EIR, citing the appropriate section(s) of the incorporated document and describing the relationship between the incorporated part of the referenced document and this EIR.

2.0 ENVIRONMENTAL SETTING

2.1 REGIONAL SETTING AND LOCATION

The approximately 58.6 gross-acre Project site is located in the unincorporated community of Mead Valley, in western Riverside County, California. Western Riverside County abuts San Bernardino County to the northeast, Orange County to the west, and San Diego County to the south. Los Angeles County is located further to the northwest. Figure 3-1, *Regional Map*, in EIR Section 3.0, *Project Description*, depicts the Project site's location in a regional context. Riverside County is located in an urbanizing area of southern California commonly referred to as the Inland Empire. The Inland Empire is an approximately 28,000 square mile region comprising Riverside County, San Bernardino County, and the eastern tip of Los Angeles County. The Southern California Association of Governments (SCAG) estimates that the majority of growth in the entire southern California region will take place in Riverside and San Bernardino Counties (SCAG, 2012a, p. 2). According to U.S. Census data, the 2010 population of Riverside County was 2,189,641 (USCB, 2014). SCAG forecast models predict that the population of Riverside County will grow to approximately 3,324,000 persons (an approximate 1.1 million-person increase) by the Year 2035 (SCAG, 2012b).

The Project site is located west of the cities of Moreno Valley and Perris and southeast of the City of Riverside. Specifically, the Project site is located approximately 0.4-mile west of Interstate 215 (I-215) and the City of Perris, 1.5 miles west of the City of Moreno Valley, 5.8 miles south of State Route 60 (SR-60), and 2.5 miles southeast of the City of Riverside.

2.2 LOCAL SETTING AND LOCATION

At the local scale, the Project site is located south of Oleander Avenue, north of Redwood Drive, east of Day Street, and west of Harvill Avenue. Ellsworth Street (also referred to as "Decker Road" throughout this EIR) transects the Project site in a north to south direction. The approximately 37.1-acre portion of the Project site located east of Ellsworth Street is referred to within this EIR as the "Building D Site." The approximately 21.5-acre portion of the Project site located west of Ellsworth Street is referred to within this EIR as the "Building E Site." Figure 3-2, *Vicinity Map*, in EIR Section 3.0, *Project Description*, identifies the location of the Project site and illustrates the relationship between the Building D Site and Building E Site.

The Project site lies within the northeastern portion of Section 2, Township 4 South, Range 4 West (San Bernardino Baseline and Meridian). The Building D Site occupies Assessor Parcel Number APN 314-040-001, 314-040-002, 314-040-003, and 314-040-008. The Building E Site occupies, 314-020-017 and a portion of APN 314-020-010.

2.3 SURROUNDING LAND USES AND DEVELOPMENT

The Project site is located in the I-215 corridor, which is an area of Riverside County that is developing as an employment center, containing business park, distribution warehousing, e-commerce, and light

industrial land uses. Figure 2-1, *Surrounding Land Uses and Development*, depicts the existing land uses in the immediate vicinity of the Project site. As illustrated in Figure 2-1, lands north of the Project site are largely undeveloped, with exception of a recently constructed industrial warehouse building located north of Oleander Road and east of Harvill Avenue. To the south of the Project site are scattered, rural residences and business ventures, and undeveloped land. Southwest of the Building E Site is a water tank owned by the Eastern Municipal Water District (EMWD). To the west of the Project site are undeveloped lands, beyond which are single- family homes. To the east of the Project site are undeveloped lands, several scattered single-family residences and an industrial warehouse building located along the eastern edge of Harvill Avenue. Approximately 0.4 miles to the east is I-215, beyond which are the March Air Reserve Base (MARB) and an area of the City of Moreno Valley mostly developed with industrial warehouse buildings.

2.4 PLANNING CONTEXT

This subsection provides a description of the Project site's land use and zoning designations, as well as a description of broader, regional planning documents that are applicable to the Project site.

2.4.1 COUNTY OF RIVERSIDE GENERAL PLAN AND MEAD VALLEY AREA PLAN

The prevailing planning document for the Project site and its surrounding area is the Riverside County General Plan. As shown on Figure 2-2, *Existing General Plan Land Use Designations*, the Riverside County General Plan and Mead Valley Area Plan designate the majority of the Building D Site for "Community Development–Light Industrial (CD-LI)" land uses and the southwest portion of the Building D Site for "Community Development-Business Park (CD-BP)" Land uses The entirety of the Building E Site is designated for "Community Development-Business Park (CD-BP)" land uses. The CD-BP land use designation allows for employee-intensive uses, including research & development, technology centers, corporate offices, clean industry, and supporting retail uses at a maximum building intensity of 0.60 floor area ratio (FAR). The CD-LI land use designation allows for industrial and related uses including warehousing/distribution, assembly and light manufacturing, repair facilities, and supporting retail uses at a maximum building intensity of 0.60 FAR. (Riverside County, 2003a, Table LU-4) The Project site is located in the City of Perris Sphere-of-Influence (SOI). A SOI is a geographic area that could eventually be incorporated into a city by annexation, subject to approval of the Riverside County Local Agency Formation Commission (LAFCO).

2.4.2 ZONING

As shown on Figure 2-3, *Existing Zoning Designations*, Riverside County applies four zoning designations to the Project site. The Building D Site is zoned for "Manufacturing – Medium (M-M)," "Rural Residential (R-R)," and "Industrial Park (I-P)." The Building E Site is zoned for "Rural Residential 1/2-Acre Lot Sizes (R-R-1/2)" and "Industrial Park (I-P)." The R-R-1/2 zoning designation allows for single-family residential development and limited agricultural and animal keeping uses on minimum one-half-acre lot sizes. The "M-M" zoning designation allows for limited agricultural uses, medium-intensity manufacturing and commercial uses, and more intensive manufacturing uses with

Figure 2-1

0 225 450 900 Feet

SURROUNDING LAND USES AND DEVELOPMENT

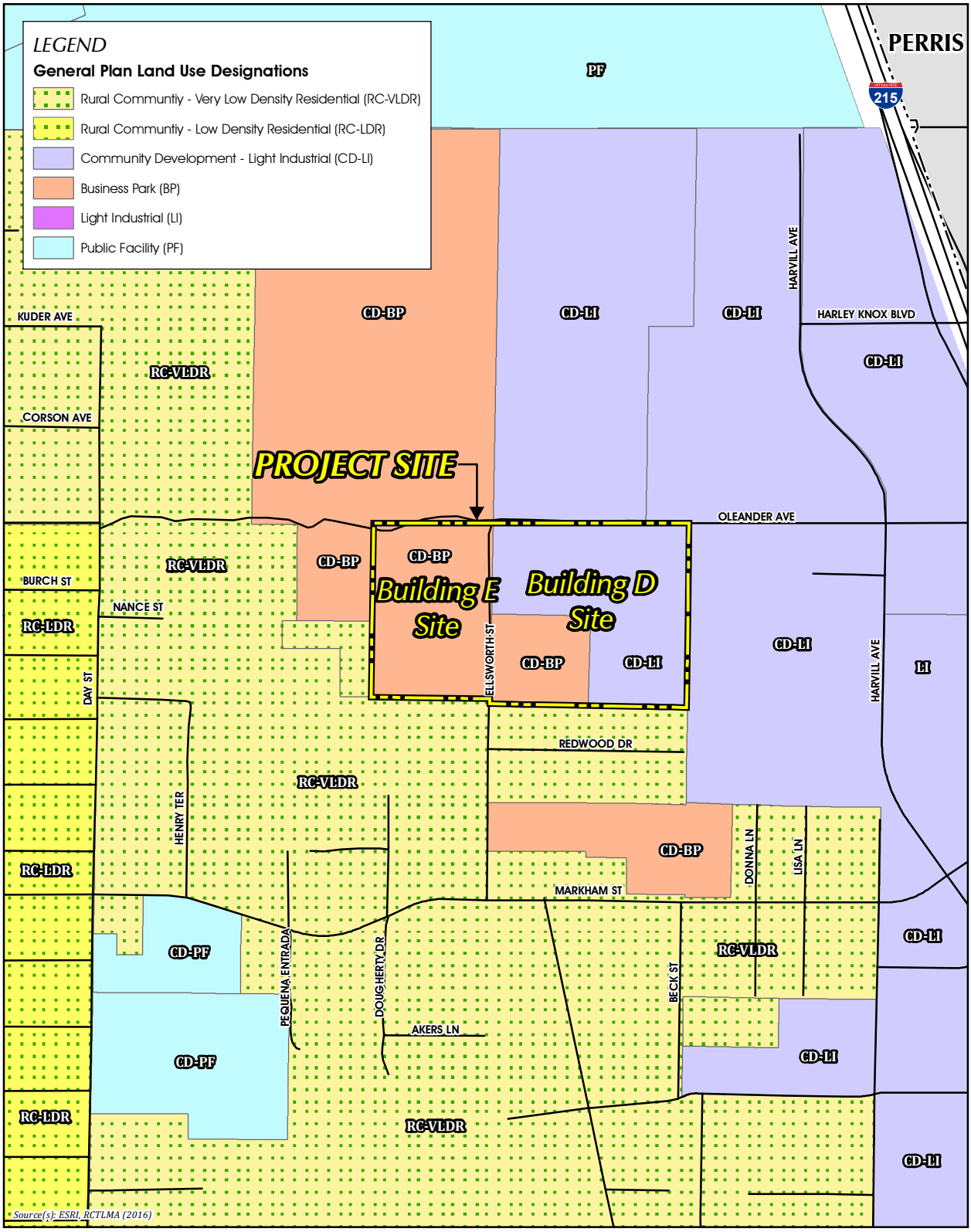


Figure 2-2

EXISTING GENERAL PLAN LAND USE DESIGNATIONS

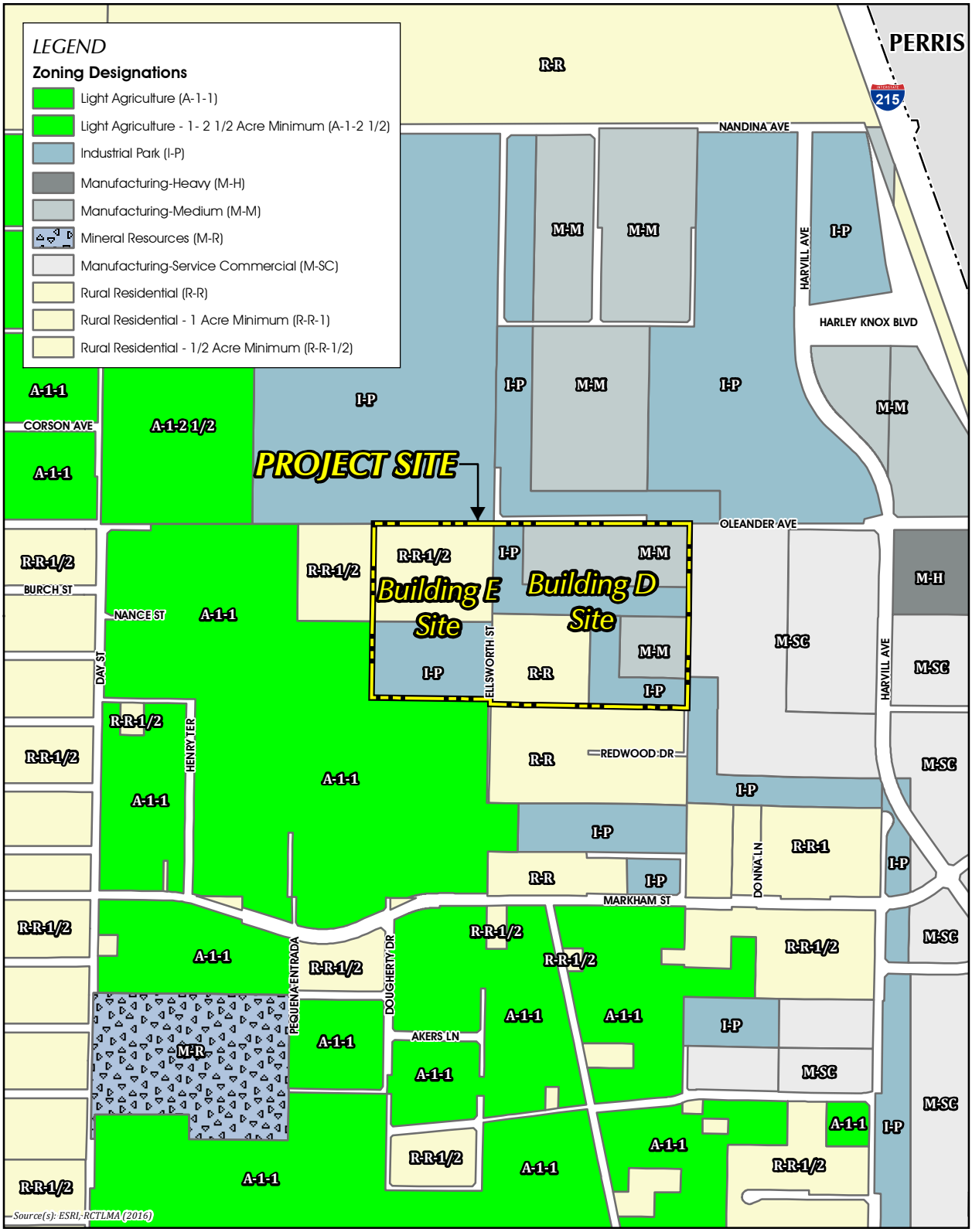


Figure 2-3

EXISTING ZONING DESIGNATIONS

approval of a conditional use permit. The "R-R-1/2" zoning designation allows for single-family dwellings and small-scale agricultural uses. The "I-P" zoning designation allows for industrial and manufacturing uses with approval of a plot plan, and certain specified service and commercial uses with approval of a plot plan.

2.4.3 SCAG REGIONAL TRANSPORTATION PLAN

SCAG is a Joint Powers Authority (JPA) under California state law, established as an association of local governments and agencies that voluntarily convene as a forum to address regional issues. Under federal law, SCAG is designated as a Metropolitan Planning Organization (MPO) and under state law as a Regional Transportation Planning Agency and a Council of Governments. The SCAG region encompasses six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura) and 191 cities in an area covering more than 38,000 square miles. SCAG develops long-range regional transportation plans including sustainable communities strategy and growth forecast components, regional transportation improvement programs, regional housing needs allocations and other plans for the region.

As a MPO and public agency, SCAG develops transportation and housing plans that transcend jurisdictional boundaries that affect the quality of life for southern California as a whole. SCAG's *2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)* includes a chapter titled "Goods Movement" that is applicable to the proposed Project because the Project proposes two business park warehouse buildings in the SCAG region that could support a variety of light industrial, distribution warehousing, and logistics users. The *2012-2035 RTP/SCS* states that the SCAG region hosts one of the largest clusters of logistics activity in North America. Logistics activities, and the jobs that go with them, depend on a network of warehousing and distribution facilities, highway and rail connections, and intermodal rail yards. To that end, the *Goods Movement Appendix* of the *RTP/SCS* sets forth regional strategies to achieve an efficient movement of goods, which states the following:

> *"Goods movement and freight transportation are essential to supporting the SCAG regional economy and quality of life. The goods movement system in the SCAG region is a multimodal, coordinated network that includes deep water marine ports, international border crossings, Class I rail lines, interstate highways, state routes and local roads, air cargo facilities, intermodal facilities, and regional distribution and warehousing clusters. In 2010, over 1.15 billion tons of cargo valued at almost $2 trillion moved across the region's transportation system. Whether carrying imported goods from the San Pedro Bay Ports to regional distribution centers, supplying materials for local manufacturers, or delivering consumer goods to SCAG residents, the movement of freight provides the goods and services needed to sustain regional industries and consumers on a daily basis."* (SCAG, 2012c, p. 1)

According to SCAG's *Comprehensive Regional Goods Movement Plan and Implementation Strategy*, the SCAG region is forecasted to have a demand for over one billion square feet of warehousing space

by the year 2035, including a demand for 943 million square feet of non-port warehouse space (SCAG, 2013, pp. 4-39 and 4-40). However, SCAG projects that the region will run out of suitably zoned vacant land designated for warehouse facilities around the year 2028 unless other land not currently zoned for warehousing becomes available (SCAG, 2013, p. 4-39).

Within the SCAG region, Riverside County contains the largest share of undeveloped space suitable for industrial warehouse development (60.0 million square feet, 32.2%), of which the vast majority (67.5%) is located in outlying desert areas (SCAG, 2013, p. 3-34). A substantial amount of available industrial land is located in the vicinity of the SR-60 corridor, particularly in Moreno Valley, Perris, and unincorporated areas near March Air Reserve Base. Approximately 50% of the SCAG region's projected future industrial warehouse space is located within a five (5) mile radius of SR-60 (SCAG, 2013, p. 6-16).

2.4.4 RIVERSIDE COUNTY AIRPORT LAND USE COMPATIBILITY PLAN

The MARB Airport Land Use Compatibility Plan (ALUCP) identifies land use standards and design criteria for new development located in the proximity of the MARB to ensure compatibility between the airport and surrounding land uses and to maximize public safety. The Project site is located within the influence area of MARB and is subject to the March Air Reserve Base ALUCP. The Project site is located within Compatibility Zone C2 of the ALUCP. According to ALUCP Table MA-2, *Base Compatibility Criteria*, within Compatibility Zone C2, highly noise-sensitive outdoor residential uses and hazards to flight are prohibited. In addition, children's schools are discouraged, airspace review is required for objects greater than 70 feet tall, and the MARB must be notified of any land use having an electromagnetic radiation component to assess whether a potential conflict with Air Base radio communications could result. (RCALUC, 2014, Table MA-2)

2.4.5 WESTERN RIVERSIDE COUNTY MULTIPLE SPECIES HABITAT CONSERVATION PLAN

The Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), a regional Habitat Conservation Plan (HCP), was adopted on June 17, 2003, and an Implementing Agreement (IA) was executed between the United States Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), and participating entities. The intent of the Western Riverside County MSHCP is to preserve native vegetation and meet the habitat needs of multiple species, rather than focusing preservation efforts on one species at a time. The MSHCP identifies Criteria Areas, in which habitat conservation efforts are targeted. As shown on Figure 2-4, *MSHCP Criteria Areas*, the Project site is not located within any MSHCP Criteria Cells; thus, the Project site is not targeted for conservation under the MSHCP.

The Building D Site and the Building E Site are located within the MSHCP Mead Valley Area Plan of the Western Riverside County MSHCP. However, the Building D Site and the Building E Site are not located within an MSHCP Criteria Cell or Area Plan Subunit (RCIT, 2015) (Cadre, 2015a, p. 4) (HES, 2015b, p. 9) The nearest MSHCP Criteria Cell is located approximately 1.2 miles south of the Project site (Cell No. 2334). Additionally, according to the MSHCP Conservation Summary Report Generator

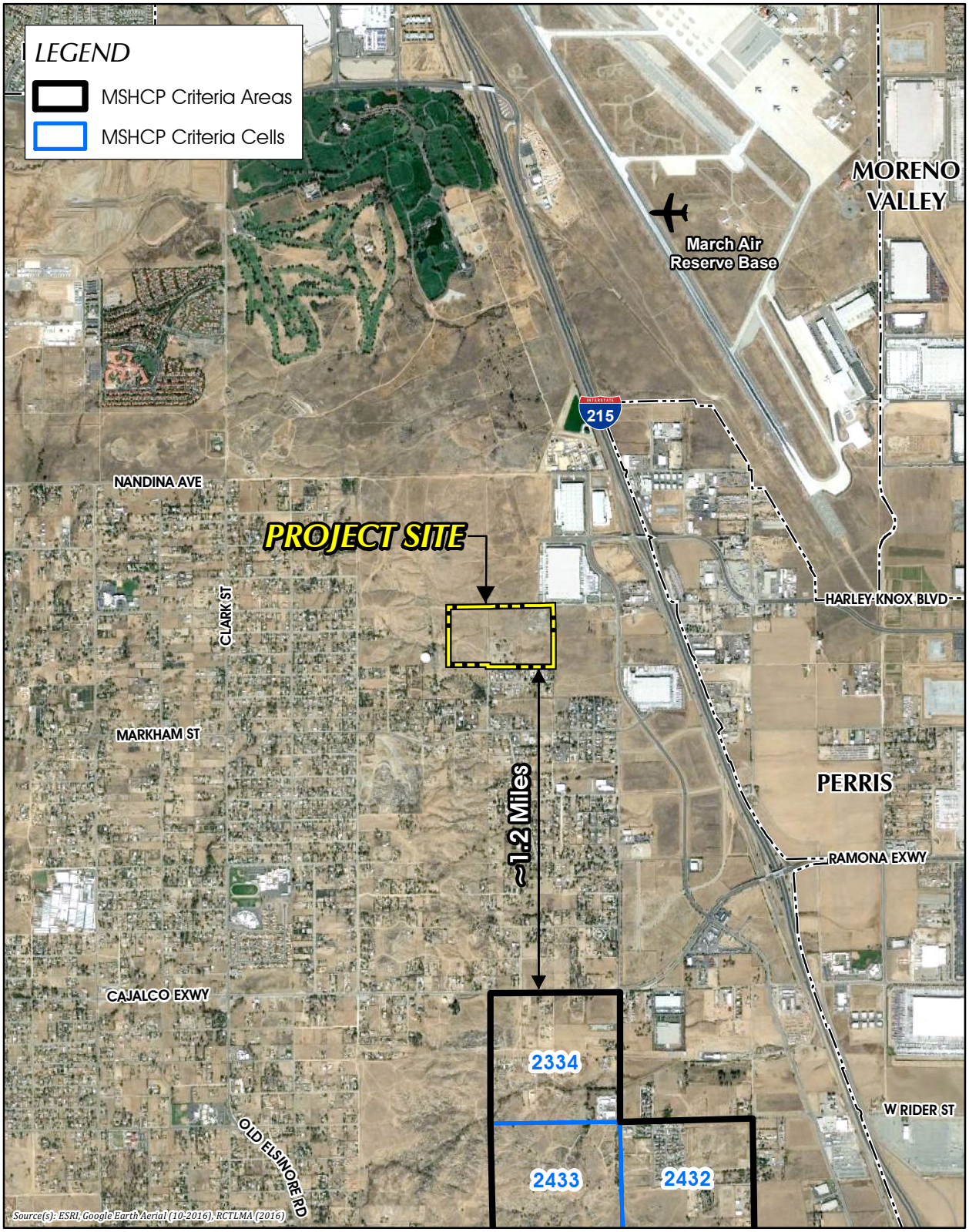


Figure 2-4

MSHCP CRITERIA AREAS

the Project site is not located in a special linkage area, nor is the Project site located within the Criteria Area Species Survey Area (CASSA) for amphibian species, mammals, or narrow endemic plants (pursuant to MSHCP Section 6.3.2). Additionally, the Project site is not located within any narrow endemic plant species survey areas (pursuant to MSHCP Section 6.3.2), nor is the Project site subject to the MSHCP Urban/Wildland Interface Guidelines (pursuant to MSHCP Section 6.1.4), because the Project site is not located near any MSHCP conservation areas. However, the Project site is located within the CASSA for the western burrowing owl, pursuant to MSHCP Section 6.3.2. (RCIT, 2015) (County of Riverside TLMA, 2015) The Project site also is located in the Stephens' Kangaroo Rat (SKR) Habitat Conservation Plan (HCP) and lies within the known range of this species. (RCIT, 2015)

Refer to EIR Section 4.4, *Biological Resources*, for a detailed discussion of the Project site's existing biological setting.

2.5 EXISTING PHYSICAL SITE CONDITIONS

Pursuant to CEQA Guidelines § 15125, the physical environmental conditions for purposes of establishing the setting of an EIR is the environment as it existed at the time the EIR's NOP was released for public review. The NOP for this EIR was released for public review on August 31, 2015, and the following subsections provide a description of the Project site's physical environmental conditions as of that approximate date ("existing conditions"). More information regarding the Project site's environmental setting is provided in the various subsections of EIR Section 4.0, *Environmental Analysis*.

2.5.1 LAND USE

As depicted on Figure 2-5, *Aerial Photograph*, the Project site consists of vacant, undeveloped land, with exception of the southwestern portion of the Building D Site that contains a mobile home, outbuildings, and a concrete pad that is used for the storage of construction equipment. The undeveloped portions of the Project site are regularly maintained for weed abatement and wildfire suppression purposes.

2.5.2 AESTHETICS AND TOPOGRAPHIC FEATURES

As shown on Figure 3-3, *USGS Topographical Map*, in EIR Section 3.0, the Project site ranges in elevation from a high point of approximately 1,665 feet above mean sea level (AMSL) at the western portion of the Building E Site to a low point of approximately 1,556 feet AMSL at the northeastern portion of the Building D Site. Portions of the Project site (i.e., the southwestern corner of the Building D Site and western portion of the Building E Site) contain mature trees. Additionally, portions of the Project site contain rock outcroppings. The Project site is transected in a north to south direction by Ellsworth Street, an unimproved dirt roadway, which separates the Building D Site from the Building E Site. In addition, several dirt roadways traverse the south-central and western portions of the Building E Site.

Figure 2-5

AERIAL PHOTOGRAPGH

There are no prominent scenic vistas or views open to the public available at the Project site. The surrounding area contains rural and suburban development, the I-215 freeway, the MARB, and industrial lands to the east and north, and rural residential and business venture uses to the south and west. The only potential scenic resource identified by the Moreno Valley Area Plan (MVAP) in the immediately surrounding area is the Gavilan Hills, located approximately 3.5 miles southwest of the Project site.

Refer to EIR Subsection 4.1, *Aesthetics*, for a detailed discussion of the Project site's existing aesthetic and topographic setting.

2.5.3 AGRICULTURAL SETTING

According to the Farmland Mapping and Monitoring Program (FMMP) of the California Resources Agency (and as reported by Riverside County GIS), the Project site contains land classified by the FMMP as "Other Lands" and "Farmland of Local Importance." No portions of the Project site are mapped as containing Prime Farmland, Farmland of Statewide Importance, or Unique Farmland ("Farmland"). No property in the immediately surrounding area is used for commercial agricultural production. According to mapping information available from the California Department of Conservation (CDC) and Riverside County, the Project site is not included within or near any active Agricultural Preserves or Williamson Act contracts. (RCIT, 2015) (CDC, 2014) (CDC, 2012)

Refer to EIR Subsection 4.2, *Agricultural Resources*, for a detailed discussion of the Project area's existing agricultural setting.

2.5.4 AIR QUALITY AND CLIMATE

The Project site is located in the 6,745-square-mile South Coast Air Basin (SCAB), which includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The SCAB is bound by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The SCAB is within the jurisdiction of the South Coast Air Quality Management District (SCAQMD), the agency charged with bringing air quality in the SCAB into conformity with federal and state air quality standards. As documented in the Project's air quality impact analysis (*Technical Appendix B1* to this EIR), although the climate of the SCAB is characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. More than 90% of the SCAB's rainfall occurs from November through April. Temperatures during the year range from an average minimum of 36°F in January to over 100°F maximum in the summer. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with the traveling storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, locally termed "Santa Ana[s]" each year.

Although air quality in the SCAB has improved over the past several decades, according to the SCAQMD, the SCAB currently does not meet state or federal criteria for ozone (8-hour standard) or particulate matter (<2.5 microns, or $PM_{2.5}$), and does not meet the state criteria for ozone (1-hour

standard) or particulate matter (<10 microns, or PM_{10}) (CARB, 2014). The SCAQMD conducts in-depth analysis of toxic air contaminants and their resulting health risks for all of Southern California. This study, entitled *Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES IV)*, predicted an excess cancer risk of 211.33 in one million for the vicinity of the Project site. (SCAQMD, 2015)

Refer to EIR Subsections 4.3, *Air Quality*, and 4.7, *Greenhouse Gas Emissions*, for a detailed discussion of the Project site's existing air quality and climatic setting.

2.5.5 CULTURAL RESOURCE SETTING

From an archaeological perspective, regional prehistory within the Project area is defined by the Paleo-Indian Period (11,500 to 9,000 years ago), the Archaic Period (9,000 to 1,300 years ago), and the Late Prehistoric Period (approximately 1,300 years ago). Each of these periods in prehistory are discussed in EIR Subsection 4.5, *Cultural Resources*. In summary, human habitation of Southern California dates back to approximately 11,500 years ago. Over a series of cultural periods, the area transitioned from a hunting and gathering society, to settlements of small groups of people, to large occupations near natural water sources, to formations of distinct ethnographic groups. The Late Prehistoric component in the area of western Riverside County was represented by the Luiseño with influences from the Gabrielino, Cahuilla, and Serrano Indians. (BFSA, 2015a, pp. 2.0-5 through 2.0-7) (BFSA, 2015b, pp. 2.05 through 2.0-7)

The Project site is located within the vicinity of a Payómkawichum village complex recognized by Native American tribes and known as Qaxáalku. The village complex is located off-site and to the west of the Project site. As part of the SB18 and AB52 consultation processes, the County of Riverside received information from the Pechanga Band of Luiseño Indians asserting that the Project site is part of a cultural landscape extending several miles around the Project site and consisting of related archaeological sites associated with either the village of Qazáalku or a smaller (unnamed) village. However, the County does not have the substantial evidence necessary to conclude that the Project site is part of landscape that meets the definition of a tribal cultural resource as defined by California Public Resources Code § 21074 and the State CEQA Guidelines. Further, the individual archaeological resources that are known to be located on the Project site are not significant sites under CEQA, as evidenced from a Phase II testing program.

The Project site is not known to have historical significance to the region and does not contain any resources recognized by the National Register of Historic Places (NHRP), California Registered Historic Landmarks Architecture (CRHL), California Points of Historic Interest (CPHI), or Riverside County Historical Landmarks (RCHL) (Riverside County, 2015d, Figure 4.9-2).

Refer to EIR Subsection 4.5, *Cultural Resources*, for a more detailed discussion of the Project site's existing cultural resource setting.

2.5.6 GEOLOGY AND SOILS

The Project site does not contain any known seismic fault lines and is not located within an Alquist-Priolo Fault Zone or County-designated fault hazard zone. (Riverside County, 2003a, Figure S-2). The nearest Alquist-Priolo Zone is located approximately 4.2 miles northeast of the Project site and the nearest Riverside County Fault Hazard Zone is located approximately 9.3 miles east of the Project site (Riverside County, 2003a, Figure S-3)(RCIT, 2015). As with all areas of southern California, the Project site is located in an area subject to seismic hazards associated with strong ground shaking resulting from activity on local and regional faults.

The surficial soils on the Project site are comprised of artificial fills in the southwestern and northeastern portion of the Project site and Quaternary Very Old Alluvial Fan Deposits and Cretaceous Val Verde Tonalite. The Very Old Alluvial fan deposits overlie the majority of the eastern portion of the Project site to depths of 3 to 12 feet. The Val Verde Tonalite underlies the balance of the Project site below the alluvium and in some areas, exposed at the surface. Large granitic outcroppings associated with the Tonalite exist on the south and southeastern portion of the Project site. (Matrix, 2014, p. 8) (Matrix, 2015, p. 6)

Refer to EIR Subsection 4.6, *Geology and Soils,* for a detailed discussion of the Project site's existing geological setting.

2.5.7 HYDROLOGY AND WATER QUALITY

The Project site is located in the San Jacinto and the San Jacinto River Sub-Watershed of the greater Santa Ana River Watershed. The Santa Ana River Watershed drains a 2,650 square-mile area. The Santa Ana River drains the largest coastal system in southern California and flows over 100 miles to a discharge point into the Pacific Ocean at the location of the City of Huntington Beach. (SAWPA, 2014a, Section 3.0)

The Project site is not located within an area subject to 100-year flood hazards. The nearest 100-year flood hazard area is located approximately 0.25 mile northwest of the Project site. (FEMA, 2015) Under existing conditions, stormwater runoff drains across the Project site from west to east (DEA, 2017). Groundwater is present on the Project site at an approximate depth of 20 feet. (Matrix, 2014, p. 4) (Matrix, 2015 pp. 4 and 7)

Refer to EIR Subsection 4.9, *Hydrology and Water Quality,* for a detailed discussion of the Project site's existing hydrology and water quality setting.

2.5.8 NOISE

The background ambient noise levels in the Project study area are dominated by vehicle noise from the nearby arterial roadway network and aircraft noise from the MARB. Secondary background ambient noise is also included in the noise level measurements from existing stationary noise sources in the Project study area, such as the existing warehouse/distribution building located northeast of the

Project site. Urban Crossroads, Inc. collected 24-hour noise measurements at seven (7) locations in the Project area from March 31 to April 1, 2015. Measured hourly noise levels in the study area ranged from 60.0 equivalent level decibels (dBA Leq) to 70.5 dBA Leq which correlates to a Community Noise Level (CNEL) from 67.0 CNEL to 75.1 CNEL (Urban Crossroads, Inc., 2017b, Table 5-1).

Refer to EIR Subsection 4.11, *Noise*, for a detailed discussion of the Project site's existing noise setting.

2.5.9 PALEONTOLOGICAL RESOURCE SETTING

No fossil remains are known to underlie the Project site. According to data compiled by Riverside County during preparation of the County's General Plan, the entire Building E Site and majority of the Building D Site have "Low" paleontological sensitivity. The northeastern corner of the Building D Site has "High B" paleontological sensitivity (refer to Figure 4.17-1, *Paleontological Sensitivity Map).* Based on this information, there is a potential for fossil bearing rock formations to be present beneath the northeastern portion of the Project site. (BFSA, 2015c, pp. 2-3)

Refer to EIR Subsection 4.17, *Paleontological Resources*, for a detailed discussion of the Project site's paleontological setting.

2.5.10 TRANSPORTATION AND TRAFFIC

The Project site is vacant with the exception of a mobile home, out structures, and a concrete parking pad for construction equipment. As such, a nominal amount of traffic is generated by the Project site under existing conditions. Major vehicular travel routes in the region include I-215, SR-60, State Route 91 (SR-91), and Interstate 15 (I-15). Local roads in the Project site's vicinity include Oleander Avenue, Ellsworth Street (which transects the Project site), and Harvill Avenue. Several local roads are unpaved. Existing traffic on nearby roadways consists of both passenger vehicles and heavy trucks. Field observations conducted in April 2015 by Urban Crossroads, Inc. indicated nominal pedestrian and bicycle activity within the Project area (Urban Crossroads, Inc., 2015e, p. 31).

Refer to EIR Subsection 4.15, *Transportation and Traffic*, for a detailed discussion of the Project site's existing transportation and circulation setting.

2.5.11 UTILITIES AND SERVICE SYSTEMS

The Project site is serviced by the Eastern Municipal Water District (EMWD) for domestic water and sewer service. EMWD manages the domestic water supply and delivery service within its 555 square mile service area. As documented in EMWD's 2010 Urban Water Management Plan, EMWD has four sources of water supply: 1) imported water from the Metropolitan Water District (MWD); 2) recycled water; 3) local groundwater production; and 4) desalted groundwater (EVMWD, 2011, Chapter 3). EMWD has an adopted Water Shortage Contingency Plan (EMWD Ordinance 117.2) that applies regulations and restrictions on the delivery of and consumption of water during water shortages. Regarding sewer collection and treatment, EMWD collects and treats all of the wastewater collected in its service area to tertiary standards.

Solid waste collection and disposal in the Project area is conducted by Waste Management of the Inland Empire, a division of Waste Management, Inc. Landfills that have the potential of receiving solid waste from the Project site include the El Sobrante Landfill, the Badlands Sanitary Landfill, and the Lamb Canyon Sanitary Landfill.

Refer to EIR Subsection 4.16, *Utilities and Service Systems*, for a detailed discussion of the Project site's existing and utilities and service systems.

2.5.12 VEGETATION AND HABITAT CLASSIFICATIONS

As disclosed above in Subsection 2.4.5, the Project site is not located within or adjacent to any area designated for habitat preservation by the Western Riverside County MSHCP. Plant communities and habitat classifications observed on the Building D Site were documented by Cadre Environmental (Cadre) as: disturbed, gravel road/splay, structure, and trees (non-native Olive trees, Peruvian Pepper trees, and Mexican Palo Verde trees) (Cadre, 2015a, pp. 8-9). The plant communities and habitat classifications observed on the Building E Site were documented by Hernandez Environmental Services (HES) as: disturbed non-native vegetation, disturbed non-vegetated, Peruvian Pepper trees, and granitic rock outcrops (HES, 2015b, pp. 6-7). An ephemeral drainage feature that meets the MSHCP definition of a riparian/riverine feature, because it receives fresh water flow all or part of the year, crosses the Project site and encompasses 0.09-acre (677 linear feet) of the Building D Site and 0.11-acre (690 linear feet) of the Building E Site.

Refer to EIR Subsection 4.4, *Biological Resources*, for a detailed discussion of the Project site's biological resources.

2.5.13 WILDLIFE

The Project site occurs within a predetermined Survey Area for the western burrowing owl (*Athene cunicularia*). During field surveys, Cadre detected a single adult burrowing owl foraging and utilizing a network of burrow sites within the Building D Site and HES observed a single burrowing owl outside of its burrow in the north central portion of the Building E Site (Cadre, 2015a, pp. 2,6,8) (HES, 2015c, n.p.). In addition, two San Diego black-tailed jackrabbit (*Lepus californicus bennetti*) individuals, a California Species of Concern (CSC), were identified by Cadre during their field survey on the Building D Site. (Cadre, 2015a, p. 16)

2.5.14 RARE AND UNIQUE RESOURCES

As required by CEQA Guidelines Section 15125(c), the environmental setting should identify any inconsistencies between a proposed project and applicable general, specific, or regional plans, and place special emphasis on resources that are rare or unique to that region and would be affected by the project. The Project Applicant proposes to develop an approximately 58.6-acre property to accommodate two business park warehouse buildings. The principal discretionary actions required of Riverside County to implement the Project are described in detail in Section 3.0, *Project Description* and are listed in Table 3-2, M*atrix of Project Approvals/Permits.* As noted, the Project Applicant

proposes to change the land use and zoning designations on portions of the property; as such, the proposed Project is not consistent with the existing General Plan designations. The potential environmental effects associated with this inconsistency are evaluated in Section 4.0, *Environmental Analysis*, of this EIR. Based on the existing conditions of the Project site and surrounding area described above and discussed in more detail in Section 4.0, *Environmental Analysis*, the Project site does not contain any resources that are rare or unique to the region. In regards to Native American resources, a Payómkawichum village complex recognized by Native American tribes known as Qaxáalku is located off-site and to the west of the Project site. As part of the SB18 and AB52 consultation processes, the County of Riverside received information from the Pechanga Band of Luiseño Indians asserting that the Project site is part of a cultural landscape extending several miles around the Project site and consisting of related archaeological sites associated with either the village of Qazáalku or a smaller (unnamed) village. However, the County does not have the substantial evidence necessary to conclude that the Project site is part of landscape that meets the definition of a tribal cultural resource as defined by California Public Resources Code § 21074 and the State CEQA Guidelines. Further, the individual archaeological resources that are known to be located on the Project site are not significant sites under CEQA, as evidenced from a Phase II testing program. Therefore, the archaeological resources present on the Project site are not considered to be rare or unique.

3.0 PROJECT DESCRIPTION

This section provides all of the information required of an EIR Project Description by CEQA Guidelines § 15124, including a description of the Project's precise location and boundaries; a statement of the Project's objectives; a description of the Project's technical, economic, and environmental characteristics; and a description of the intended uses of this EIR, including a list of the governmental agencies that are expected to use this EIR in their decision-making processes, a list of the permits and approvals that are required to implement the Project, and a list of related environmental review and consultation requirements.

The Project evaluated by this EIR encompasses two separate, independent projects, referred to herein as Knox Business Park Building D and Knox Business Park Building E. Because these projects are adjacent and are proposed by the same Project Applicant, CEQA requires that they be evaluated as a single project. CEQA prohibits piecemeal environmental review of projects with related impacts that could be considered a single project. The Building D Site is located on approximately 37.1 acres east of Ellsworth Street and the Building E Site is located on approximately 21.5 acres west of Ellsworth Street. Both properties are collectively referred to in this EIR as the "Project site" and individually as the "Building D Site" and the "Building E Site." Both projects are collectively referred to in this EIR as the "Project" and individually as the "Building D Project" and the "Building E Project."

Under existing conditions, the approximately 58.6 gross-acre Project site is mostly undeveloped and vacant, with exception of the southwest corner of the Building D Site which contains a mobile home, out structures, and a concrete pad that is used for storage of construction equipment. The proposed Project involves the demolition and removal of the existing structures and associated improvements, grading and preparation of the property for development, and the construction and operation of two business park warehouse buildings (Buildings D and E) with a combined, maximum floor space of 1,113,627 square feet (s.f.). The Building D Site, located south of Oleander Avenue and east of Ellsworth Street (also referred to as "Decker Road" throughout this EIR), would contain one business park warehouse building with a maximum of 702,645 s.f. of building space. The Building E Site located south of Oleander Avenue and west of Ellsworth Street, would contain one business park warehouse building with a maximum of 410,982 s.f. of building space. Associated improvements to the Building D and E Sites would include, but are not limited to, surface parking areas, vehicle drive aisles, truck courts, utility infrastructure, landscaping, exterior lighting, signage, walls and fencing, a guard shack, and water quality/detention basins. Both the Building D Project and the Building E Project also would construct frontage improvements to Ellsworth Street and Oleander Avenue. The Project Applicant proposes to construct Buildings D and E on a speculative basis, meaning that the proposed buildings' future occupants are not yet known. Building occupants are proposed to be high cube/logistics warehouse uses, which is a permitted use under the County's Industrial Park (I-P) Zone, and provides a realistic assessment of the potential environmental impacts that would occur once the Project is operational.

This EIR analyzes the physical environmental effects associated with all components of the Project, including planning, construction, and ongoing operation. Governmental approvals requested from the County of Riverside to implement the Project for the Building D Site include General Plan Amendment No. 1151 (GPA 1151), Change of Zone No. 7872 (CZ 7872), Tentative Parcel Map No. 36950 (PM 36950), and Plot Plan No. 25838 (PP 25838). Governmental approvals requested from the County of Riverside to implement the Project for the Building E Site include General Plan Amendment No. 1152 (GPA 1152), Change of Zone No. 7873 (CZ 7873), Tentative Parcel Map No. 36962 (PM 36962), and Plot Plan No. 25837 (PP 25837). These applications, as submitted to the County of Riverside by the Project Applicant, are herein incorporated by reference pursuant to CEQA Guidelines § 15150 and are available for review at the Riverside County Planning Department, 4080 Lemon Street, 12th Floor, Riverside, California 92501. All other discretionary and administrative approvals that would be required of the County of Riverside or other government agencies to implement the Project are also within the scope of the Project analyzed in this EIR.

3.1 PROJECT SITE LOCATION

The Building E Site and the Building D Site collectively comprise approximately 58.6 gross acres within the unincorporated community of Mead Valley in the northwestern portion of Riverside County, California (see Figure 3-1, *Regional Map*). The community of Mead Valley is located north and west of the City of Perris, west of the City of Moreno Valley, east of the unincorporated communities of Gavilan Hills and Glen Valley, and south and east of the City of Riverside. Portions of the Mead Valley community, including the Building D Site and Building E Site, are located within the Sphere of Influence (SOI) of the City of Perris. At the local scale, the Project site is located south of Oleander Avenue, north of Redwood Drive, and east and west of Ellsworth Street (also referred to as "Decker Road" throughout this EIR) (see Figure 3-2, *Vicinity Map*). The Project site is located approximately 0.4-mile west of I-215, 5.8 miles southwest of SR-60, and 1.1 miles west of the nearest runway at the March Air Reserve Base (MARB).

The I-215 corridor is an area of Riverside County that is developing as an employment center, containing business park, distribution warehousing, e-commerce, and light industrial land uses. Lands immediately north and east of the Project site are largely undeveloped, with exception of a recently constructed industrial warehouse building located north of Oleander Road and east of Harvill Avenue. These undeveloped properties to the north and east are designated by the County's General Plan and Mead Valley Area Plan for future development with light industrial uses. To the south of the Project site are scattered, rural residences and business ventures, and undeveloped land. The nearest sensitive receptors are occupied residential structures located to the south of the Project site with the closest off-site residence located about 276 feet from the Building D Site's southern boundary line. The next closest residence is located about 881 feet from the Building D Site's southern boundary line, with additional homes located approximately 1,000 feet and further from the Project site. Southwest of the Building E Site is a water tank owned by the Eastern Municipal Water District (EMWD). To the west of the Project site are undeveloped lands, beyond which are single-family homes.

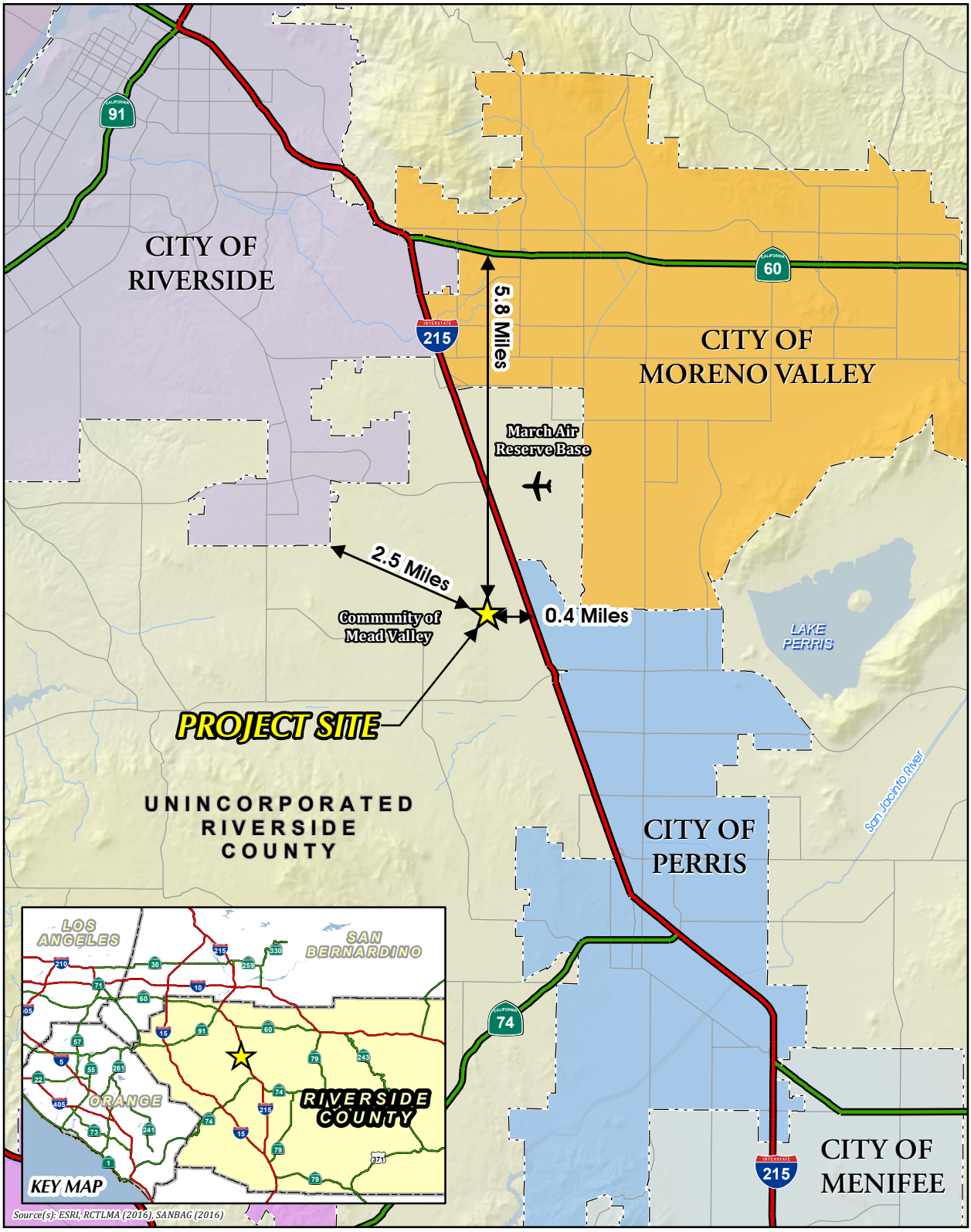


Figure 3-1

REGIONAL MAP

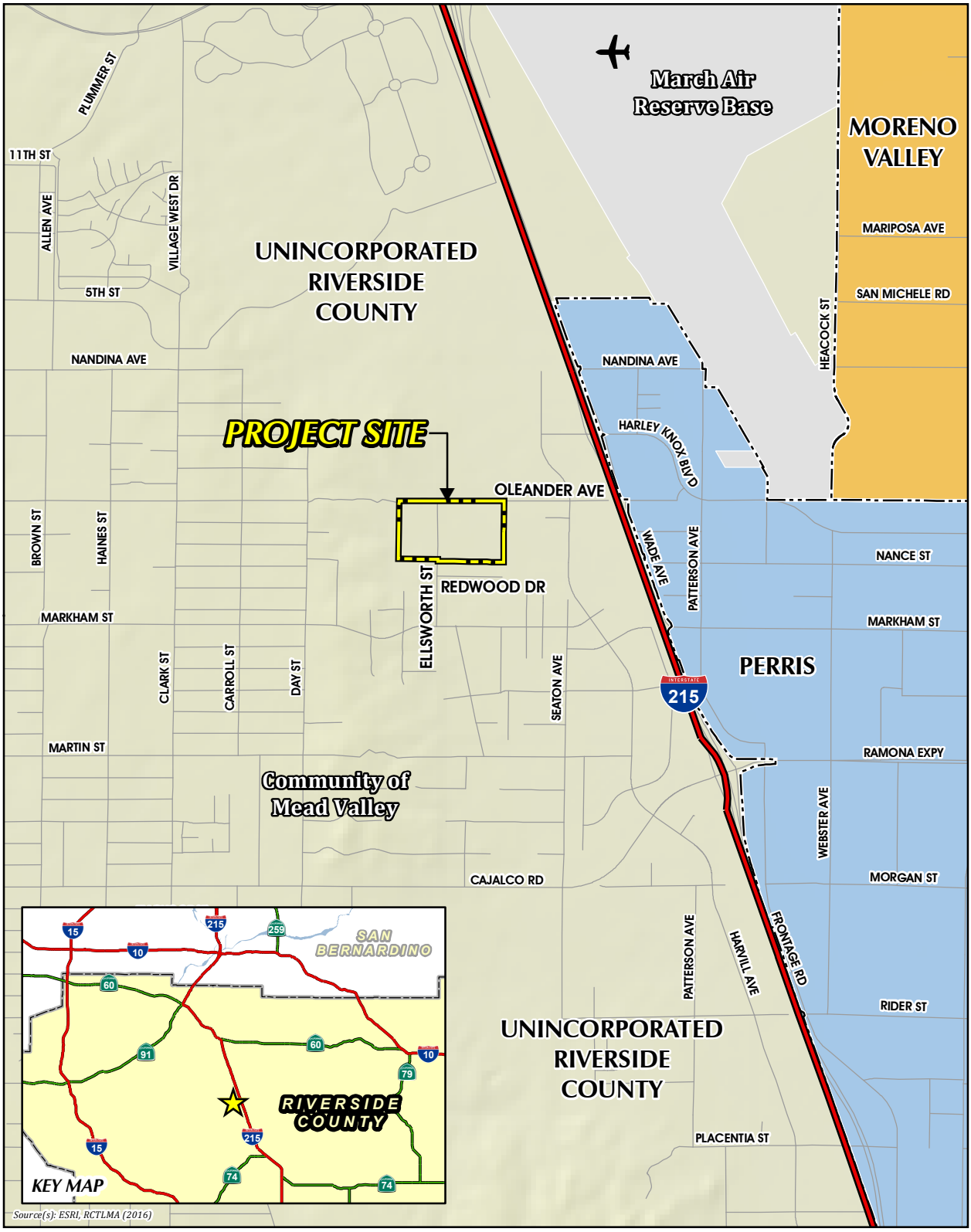


Figure 3-2

VICINITY MAP

As shown on Figure 3-3, *USGS Topographic Map*, the Project site ranges in elevation from a high point of approximately 1,665 feet above mean sea level (AMSL) at the western portion of the Building E Site to a low point of approximately 1,556 feet AMSL at the northeastern portion of the Building D Site.

Additional information about the Project site's location and setting is provided in EIR Section 2.0, *Environmental Setting*.

3.2 STATEMENT OF OBJECTIVES

The underlying purpose of the proposed Project and the County's primary objective is to entitle property in the Mead Valley community for commerce and employment-generating purposes to bring new business and jobs to the area. The objectives pertinent to the proposed Project are as follows:

A. To develop vacant or underutilized property in Mead Valley in close proximity to I-215 with business park warehouse buildings offering loading bays that can be used as part of the Southern California goods movement network.

B. To make efficient use of a property in Mead Valley by maximizing its buildout potential for employment-generating uses.

C. To attract new employment-generating businesses along the I-215 corridor thereby growing the economy and providing a more equal jobs-housing balance in the Riverside County/Inland Empire area that will reduce the need for members of the local workforce to commute outside the area for employment.

D. To develop Class A business park warehouse buildings in Mead Valley that meet industry standards for modern, operational design criteria and can accommodate a wide variety of users.

E. To develop vacant or underutilized property in Mead Valley with structures that have architectural design and operational characteristics that complements other new developments in the immediate vicinity.

F. To develop business park warehouse buildings that are economically competitive with similar industrial business park buildings in the local area and region.

3.3 PROJECT'S COMPONENT PARTS

The Project is a proposal to develop two business park warehouse buildings, Building D and Building E, on approximately 58.6 gross acres. The principal discretionary actions required of Riverside County to implement the Project are described in detail on the following pages and are listed in Table 3-2, *Matrix of Project Approvals/Permits*, at the end of this EIR section.

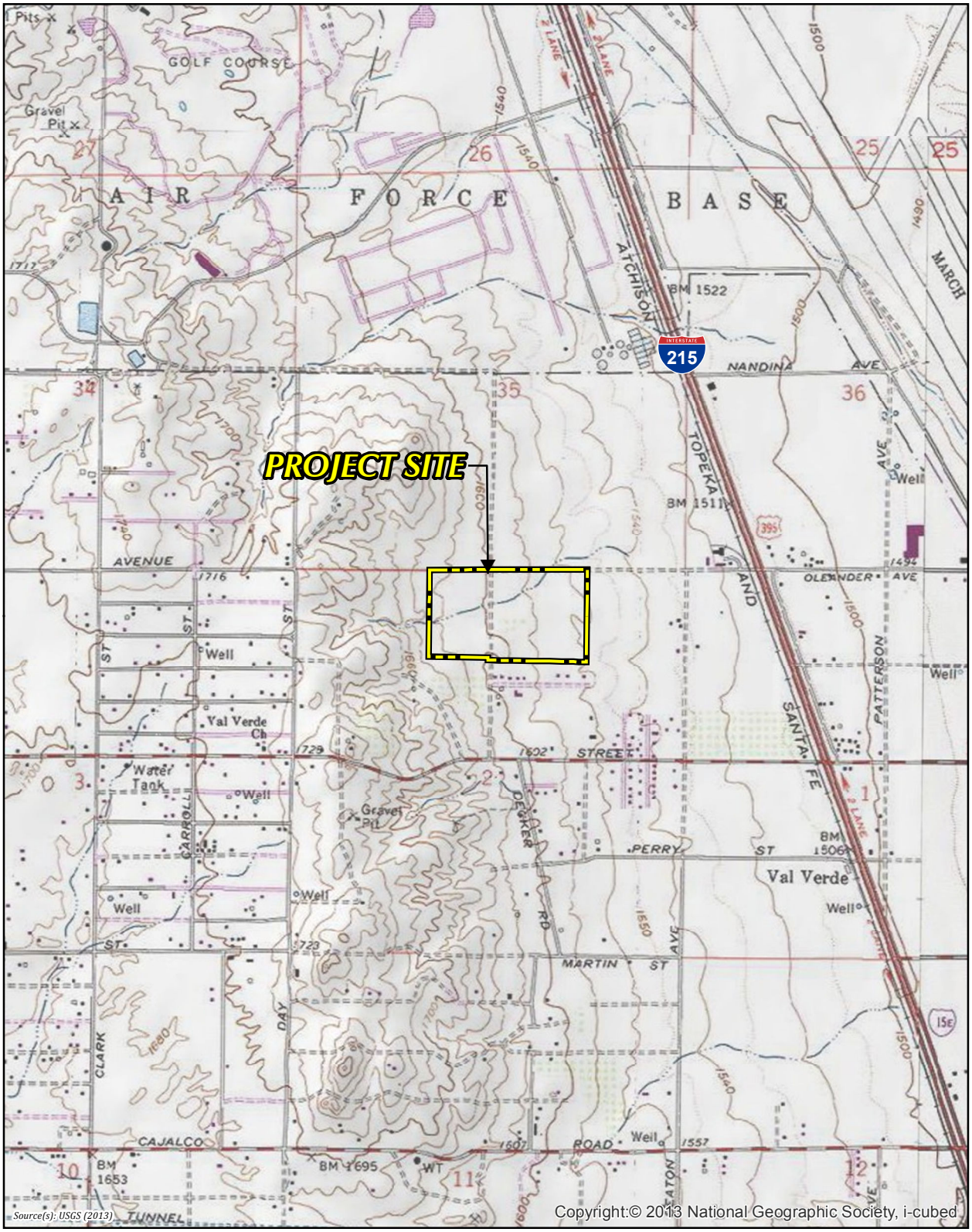


Figure 3-3

USGS TOPOGRAPHIC MAP

3.3.2 BUILDING D APPLICATIONS

A. General Plan Amendment No. 1151 (GPA 1151)

The Building D Site is designated "Community Development-Light Industrial (CD-LI)" and "Community Development-Business Park (CD-BP)" by the Riverside County General Plan under existing conditions. GPA 1151 would change the land use designation of the portion of the property designated CD-BP to CD-LI so that the entire Building D Site is designated CD-LI, as depicted on Figure 3-4, *General Plan Amendment – Building D Site*.

B. Change of Zone No. 7872 (CZ 7872)

The Building D Site is zoned "Manufacturing – Medium (M-M)," "Industrial Park (I-P)," and "Rural Residential (R-R)" under existing conditions. CZ 7872 would change the zoning designations of the portions of the property zoned M-M and R-R to I-P, so that the entire Building D Site is zoned I-P, as depicted on Figure 3-5, *Change of Zone – Building D Site*.

C. Tentative Parcel Map No. 36950 (PM 36950)

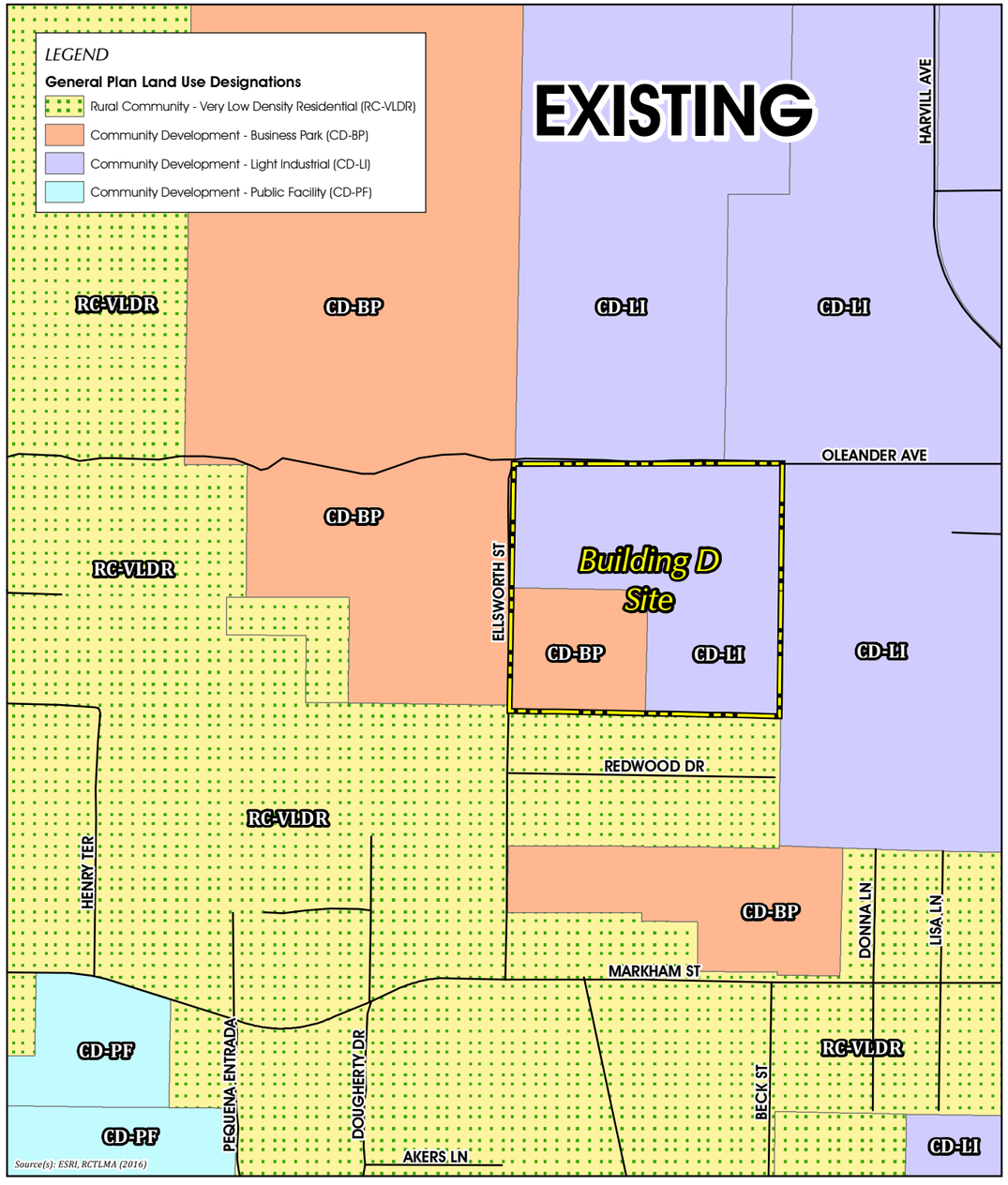
Tentative Parcel Map No. 36950 (PM 36950) proposes to consolidate the four parcels on the Building D Site into one, approximately 34.5-net-acre parcel as depicted on Figure 3-6, *Tentative Parcel Map No. 36950 (Building D Site).* In addition, PM 36950 identifies the earthwork and grading and stormwater drainage improvements needed on the Building D Site to support proposed development, as summarized below, as well as the roadway and utility infrastructure improvements required to support proposed development, as presented later in Subsection 3.4, *Technical Characteristics.*

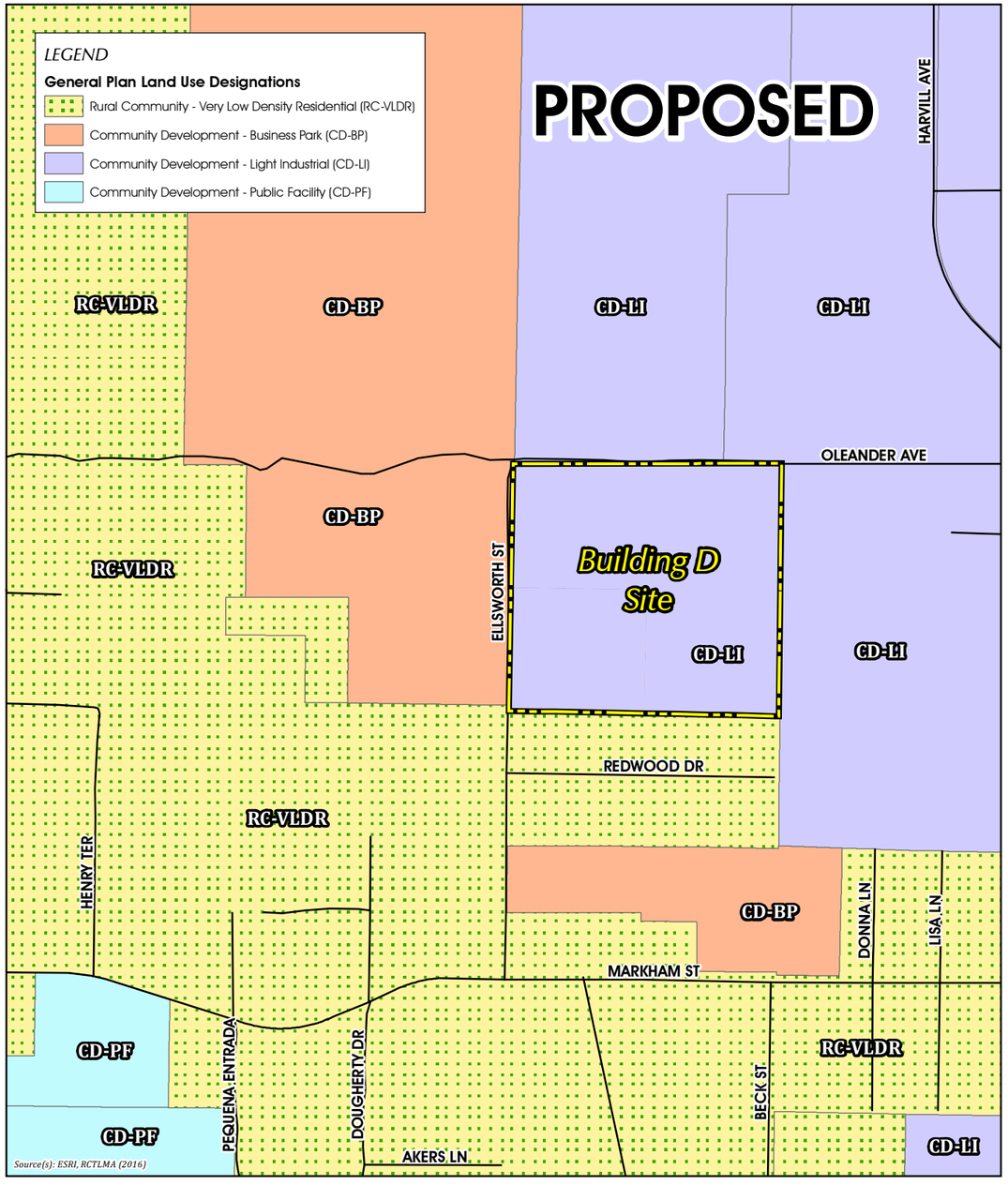
1. Earthwork and Grading

Grading would occur over the entire Building D Site; no portion of the site would be left undisturbed. Proposed earthwork activities would result in approximately 192,500 cubic yards of cut and 192,500 cubic yard of fill. Based on the expected shrinkage and compaction of on-site soils, earthwork activities are expected to balance and no import or export of soil materials would be required. When grading is complete, the building pad would sit approximately 17 feet below the ground elevation of Ellsworth Street and abutting property to the south, and the property would have a slight west-to-east-slope as depicted on Figure 3-7, *Conceptual Grading Plan – Building D Site*. After grading, the highest point of the property would be its southwest corner (approximately 1,602 feet AMSL) and the lowest point of the property would be its northeast corner (approximately 1,560 AMSL). To accommodate the proposed grading concept, manufactured slopes measuring up to 17-feet in height with a maximum incline of 47.8% would be required, as would retaining walls ranging in height from four to 12-feet tall along the southern and western portions of the property.

2. Stormwater Plan

A system of trench drains, drop inlets, underground storm drain pipes, and a bioretention/detention basin are proposed to be installed on the Building D Site to collect, treat, and temporarily store


EXISTING
LEGEND
General Plan Land Use Designations
Rural Community - Very Low Density Residential (RC-VLDR)
Community Development - Business Park (CD-BP)
Community Development - Light Industrial (CD-LI)
Community Development - Public Facility (CD-PF)
HARVILL AVE
OLEANDER AVE
ELLSWORTH ST
Building D Site
REDWOOD DR
HENRY TER
DONNA LN
LISA LN
MARKHAM ST
PEQUENA ENTRADA
DOUGHERTY DR
BECK ST
AKERS LN
RC-VLDR
CD-BP
CD-LI
CD-PF
Source(s): ESRI, RCTLMA (2016)


PROPOSED
LEGEND
General Plan Land Use Designations
Rural Community - Very Low Density Residential (RC-VLDR)
Community Development - Business Park (CD-BP)
Community Development - Light Industrial (CD-LI)
Community Development - Public Facility (CD-PF)
HARVILL AVE
OLEANDER AVE
ELLSWORTH ST
Building D Site
REDWOOD DR
HENRY TER
DONNA LN
LISA LN
MARKHAM ST
PEQUENA ENTRADA
DOUGHERTY DR
BECK ST
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RC-VLDR
CD-BP
CD-LI
CD-PF
Source(s): ESRI, RCTLMA (2016)

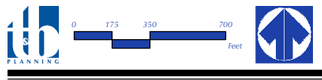
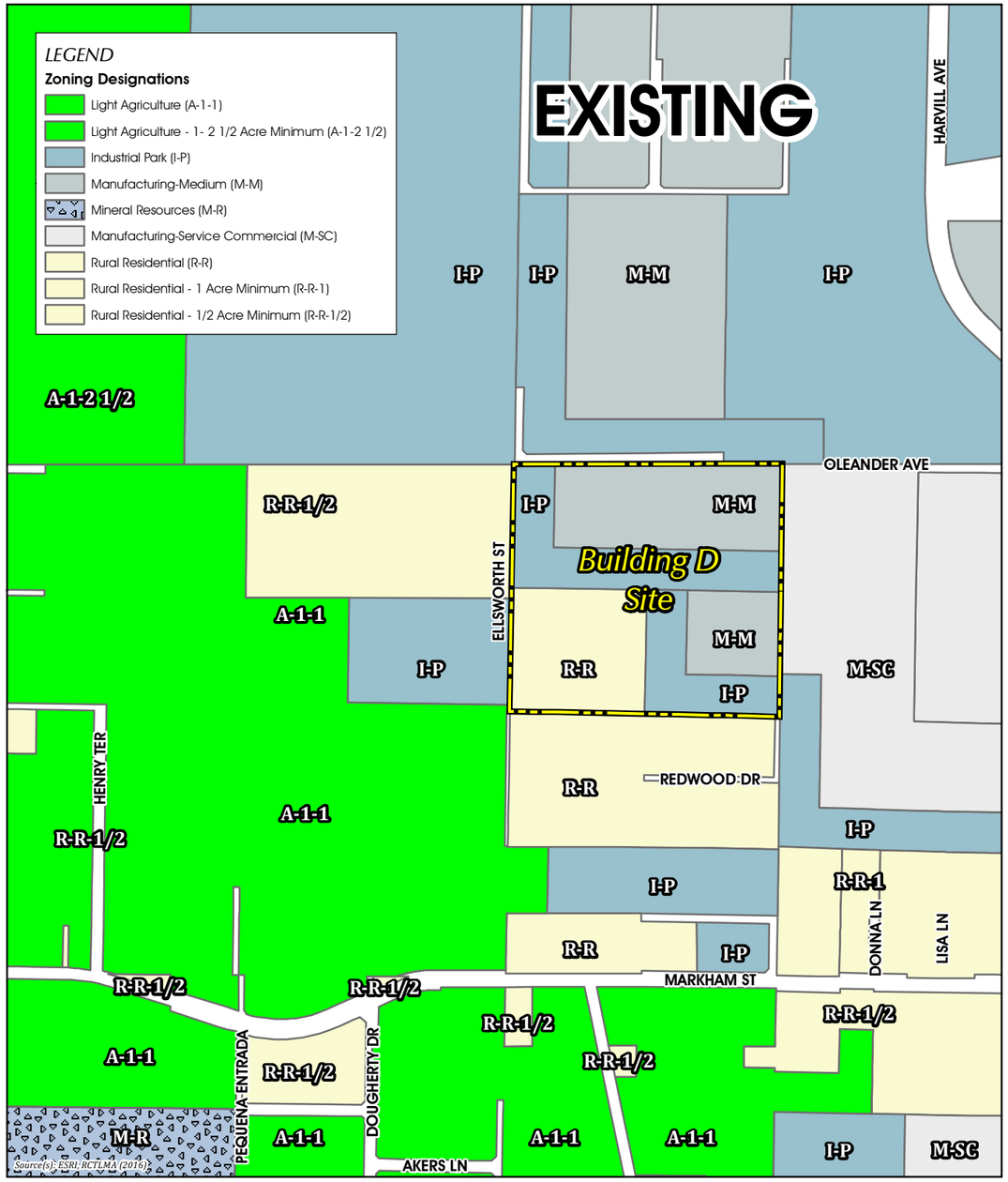

0
175
350
700
Feet

Figure 3-4



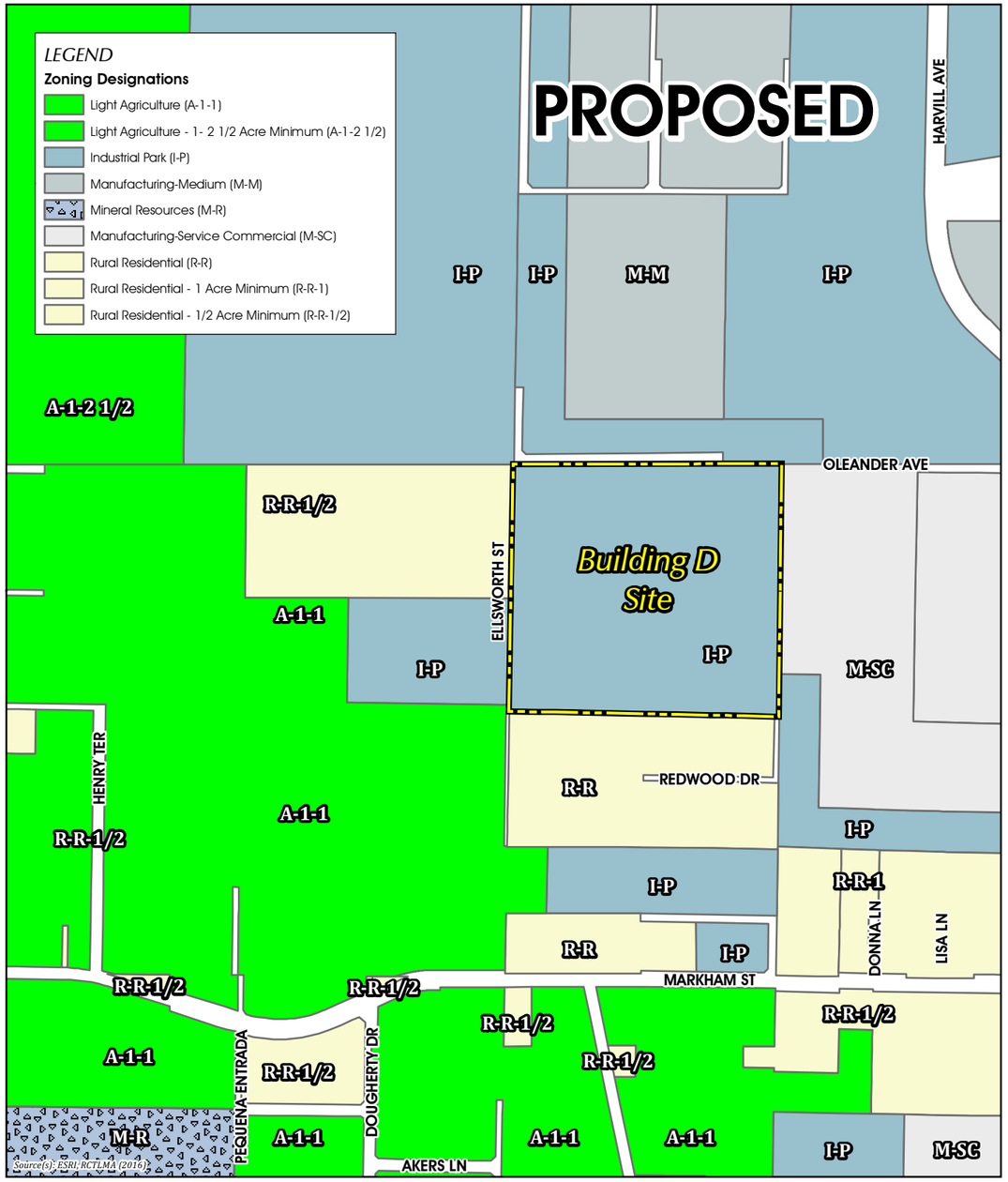
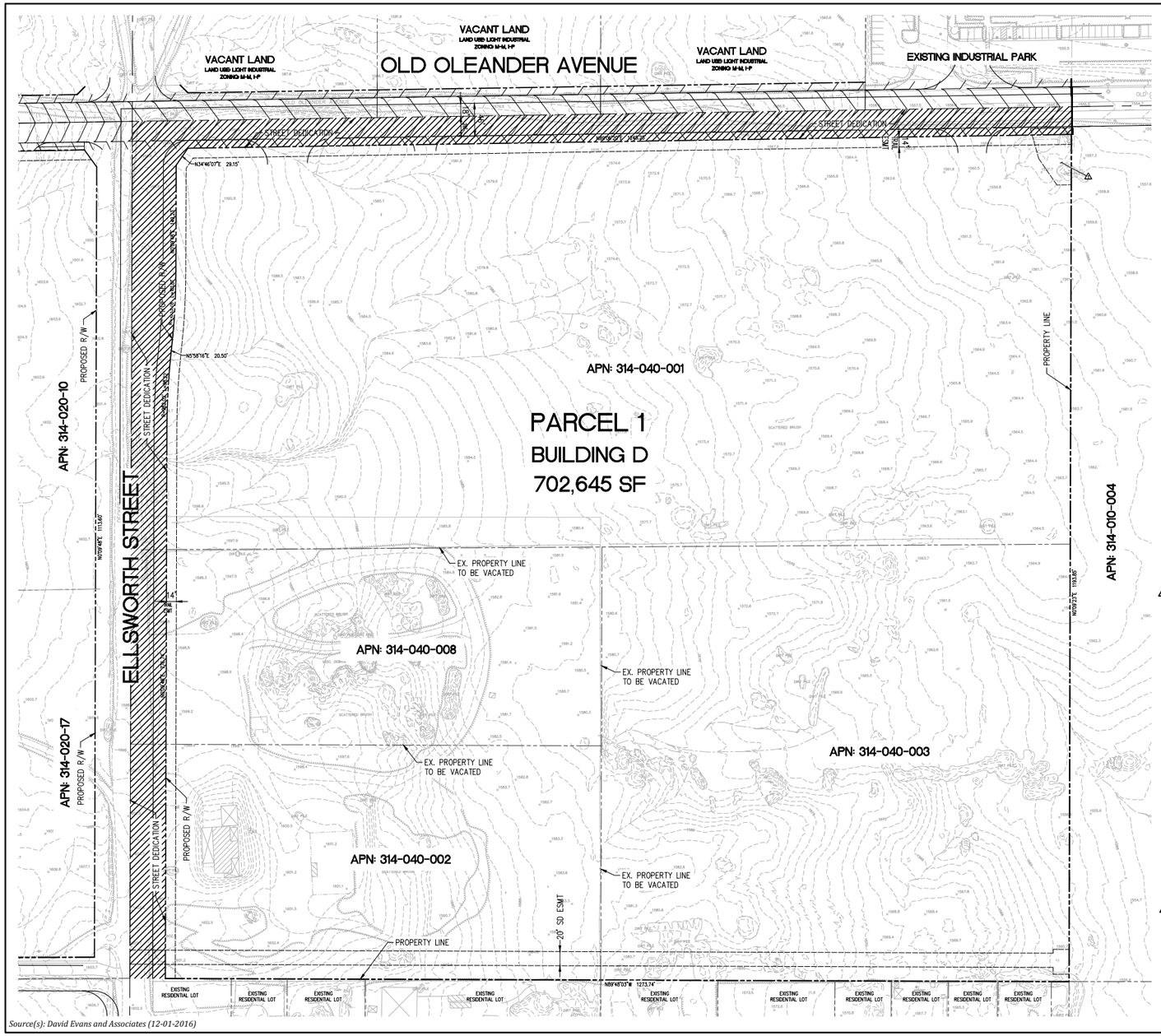


Figure 3-5

CHANGE OF ZONE - BUILDING D SITE



LEGEND

- STREET DEDICATION
- CENTER LINE
- EASEMENT
- EXISTING PROPERTY LINE
- PROPOSED R/W

LEGEND:

CL	– CENTER LINE
ESMT	– EASEMENT
EG	– EXISTING GRADE
EX	– EXISTING
FF	– FINISHED FLOOR
FG	– FINISHED GRADE
FH	– FIRE HYDRANT
FL	– FLOW LINE
FS	– FINISHED SURFACE
GB	– GRADE BREAK
HP	– HIGH POINT
INV	– INVERT
MH	– MANHOLE
R/W	– RIGHT OF WAY
SD	– STORM DRAIN
SS	– SANITARY SEWER
SF	– SQUARE FEET
TC	– TOP OF CURB
TYP	– TYPICAL
W	– WATER

NOTES:

1. THOMAS BROS. MAP PAGE 747, GRID B7 (2008 EDITION)
2. THE PROJECT AREA IS NOT SUBJECT TO LIQUIFACTION OR OTHER GEOLOGIC HAZARDS NOTED WITHIN ANY SPECIAL STUDIES ZONES
3. FEMA COMMUNITY PANEL 06065C1410G, ZONE X (OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN)
4. THIS PROJECT IS NOT WITHIN A SPECIFIC PLAN
5. THE PROJECT AREA IS NOT SUBJECT TO OVERFLOW INUNDATION OR FLOOD HAZARD
6. THE PROJECT DOES NOT INTEND TO USE SUBSURFACE SEPTIC SEWAGE
7. PROPOSED DEDICATION/EASEMENTS TO BE MADE BY SEPARATE DOCUMENTS
8. THIS PROJECT IS NOT PHASED
9. REFER TO ARCHITECTURAL PLANS FOR WALL AND FENCING DETAILS

EASEMENTS:

⚠ EASEMENT TO COUNTY OF RIVERSIDE FOR TEMPORARY DRAINAGE AND INCIDENTAL PURPOSES, RECORDED MARCH 31, 1994 AS INSTRUMENT NO. 94–136338 OF OFFICIAL RECORDS

EASEMENT TO VAL VERDE MUTUAL WATER COMPANY, A CORPORATION, FOR PIPELINES, RECORDED OCTOBER 27, 1915 AS IN BOOK 430, PAGE 345 OF DEEDS (EXACT LOCATION AND EXTENT OF SAID EASEMENT IS NOT DISCLOSED OF RECORD)

PROJECT DESCRIPTION:

THE 34.5 ACRE PROJECT SITE WILL BE DEVELOPED TO CONSTRUCT ONE 702,645 SQUARE FOOT INDUSTRIAL WAREHOUSE/DISTRIBUTION BUILDING CONSISTING OF 15,000 SQUARE FEET OF OFFICE SPACE, 10,000 SQUARE FEET OF MEZZANINE, AND 677,645 SQUARE FEET OF WAREHOUSE. THE SITE WILL CONTAIN 251 TRUCK/TRAILER PARKING STALLS (10'x53') AND 251 STANDARD (9'x18') AUTOMOBILE PARKING STALLS

NOTE:

THE MAP INCLUDES THE ENTIRE CONTIGUOUS OWNERSHIP OF THE LAND DIVIDER.

EASEMENTS:

⚠ EASEMENT TO COUNTY OF RIVERSIDE FOR TEMPORARY DRAINAGE AND INCIDENTAL PURPOSES, RECORDED MARCH 31, 1994 AS INSTRUMENT NO. 94–136338 OF OFFICIAL RECORDS

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OWNER:

PARCEL 3 (APN: 314–040–001)
DON PARKER
43910 FLORES DR, TEMECULA, CA 92592
TEL: (951) 383–0975

BILL THOMAS
P.O. BOX 127
CHERRYVILLE, MO 65446
TEL: (573) 743–6125

PARCEL 4 (APN: 314–040–008)
LANCE R. AND DIANE K VERDUGO
16589 ARABIAN AVE, RIVERSIDE, CA 92504
TEL: (951) 212–0651

PARCEL 5 (APN: 314–040–002)
ARTHUR M. AND LUCY LOPEZ
3000 TYLER ST, RIVERSIDE, CA 92503
TEL: (951) 805–1310

PARCEL 6 (APN: 314–040–003)
DON PARKER
43910 FLORES DR, TEMECULA, CA 92592
TEL: (951) 383–0975

BILL THOMAS
P.O. BOX 127
CHERRYVILLE, MO 65446
TEL: (573) 743–6125

APPLICANT:

TRAMMELL CROW COMPANY
3501 JAMBOREE ROAD, SUITE 230
NEWPORT BEACH, CA 92660
PHONE: (949)477–4700

UTILITY PURVEYORS:

WATER – EASTERN MUNICIPAL WATER DISTRICT
SEWER – EASTERN MUNICIPAL WATER DISTRICT
GAS – SOUTHERN CALIFORNIA GAS COMPANY
ELECTRIC – SOUTHERN CALIFORNIA EDISON COMPANY
TELEPHONE – VERIZON

ENGINEER:

DAVID EVANS AND ASSOCIATES
17782 17TH STREET, SUITE 200
TUSTIN, CA 92780
PHONE: (714)665–4500

ARCHITECT:

HPA ARCHITECTURE
18831 BARDEEN AVENUE, SUITE 100
IRVINE, CA 92612
PHONE: (949)863–1770

SCHOOL DISTRICT:

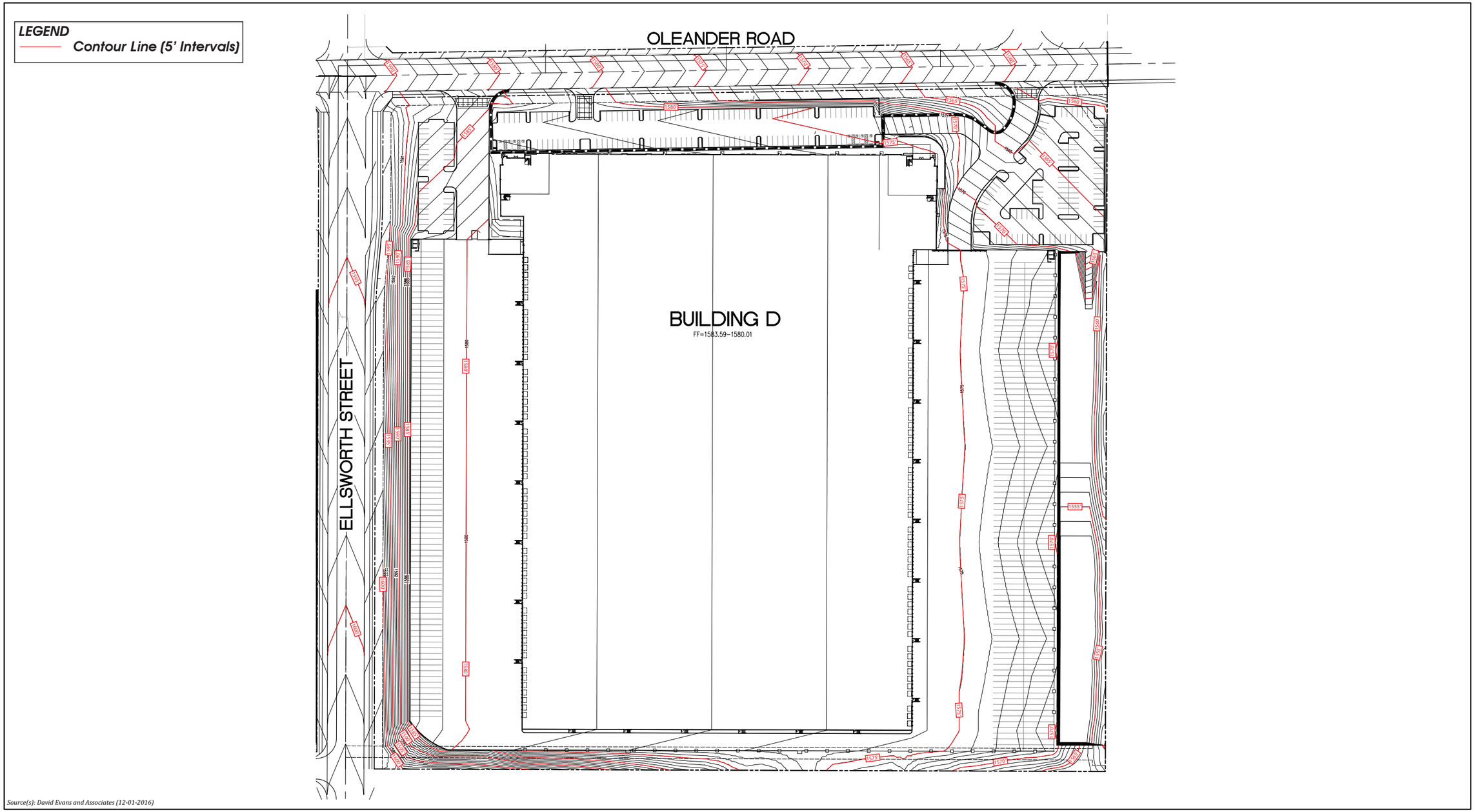
VAL VERDE UNIFIED SCHOOL DISTRICT

Source(s): David Evans and Associates (12-01-2016)

Figure 3-6

NOT TO SCALE

TENTATIVE PARCEL MAP NO. 36950 (BUILDING D SITE)



Source(s): David Evans and Associates (12-01-2016)

Figure 3-7

CONCEPTUAL GRADING PLAN - BUILDING D SITE

stormwater runoff from the site before discharging treated flows from the property. First flush stormwater runoff flows (i.e., typically the first ¾ inch of initial surface runoff after a rainstorm, which contains the highest proportion of waterborne pollution) would be conveyed to the bioretention/detention basin proposed along the eastern boundary of the property; stormwater runoff captured after the first flush would be discharged off-site via storm drain lines associated with the Perris Valley Master Drainage Plan (MDP). (DEA, 2017a) Refer to Subsection 3.4B, *Utility Infrastructure Improvements*, for additional information regarding storm drain improvements.

D. *Plot Plan No. 25838 (PP 25838)*

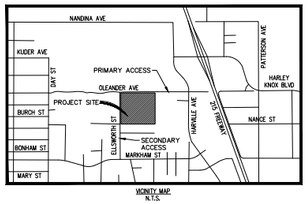
1. General Description

Proposed Building D would contain 702,645 s.f. of building space, including 677,645 s.f. of warehouse floor space, 15,000 s.f. of ground floor office space, and 10,000 s.f. of mezzanine office space. As shown on Figure 3-8, *Plot Plan No. 25838 (Building D Site)* office spaces would be located at the northwest and northeast corners of the building. Vehicular access to Building D would be provided by three driveways connecting to Oleander Avenue. All driveways on the Building D Site would be stop-sign controlled. The middle driveway on Oleander Avenue would provide access for passenger vehicles only while the westernmost and easternmost driveways on Oleander Avenue may be used by both passenger vehicles and trucks. The driveways would provide access to automobile parking areas, loading areas, and truck parking areas. Access to the proposed loading and truck parking areas located interior to the Building D Site would be gated. Proposed truck check-in points and driveways are positioned interior to the Building D Site to create interior queuing areas and minimize the potential for trucks accessing the property to stack onto Oleander Avenue.

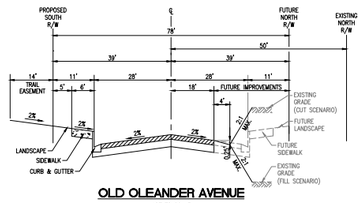
2. Parking and Loading

Figure 3-8 depicts the proposed locations of parking spaces and loading docks for Building D. The Building D Site would provide approximately 243 passenger vehicle parking spaces distributed on the northern, eastern, and western sides of the building and approximately 251 truck trailer parking spaces distributed on the western and eastern sides of the building. Bicycle parking would be provided in compliance with Riverside County Ordinance No. 348, Article XVII, Section 18.12.D, *Bicycle Parking Facilities*, which requires one bicycle space for every 25 passenger vehicle parking spaces.

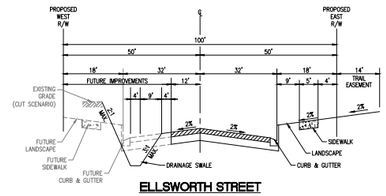
Building D would include 54 loading docks (also called "bays") on the west side of the building and 55 docks on the east side of the building (109 docks total) to be used for the loading, unloading, and short-term parking of trucks. Docks on one side of Building D would likely be used for deliveries and docks on the other side of the building would likely be used for shipments. Loading dock positions facilitate operations inside the building. When trucks have the option to dock close to the area where their cargo is sorted and stored inside the structure, workers inside the building have a shorter distance to cover when moving goods between the exterior docks and interior storage areas.



VICINITY MAP
N.T.S.



OLD OLEANDER AVENUE
NOT TO SCALE
INDUSTRIAL COLLECTOR STREET – STD. NO. 111



ELLSWORTH STREET
NOT TO SCALE
SECONDARY HIGHWAY – STD. NO. 94

SITE TABULATION:

SITE	PROPOSED NET AREA	34.5 ACRES
BUILDING	OFFICE	15,000 SF
	MEZZANINE	10,000 SF
	WAREHOUSE	677,645 SF
	TOTAL BUILDING AREA	702,645 SF
	LOADING BAYS	109
	F.A.R.	0.60
LANDSCAPE	LANDSCAPING REQUIRED (15%)	225,423 SF
	LANDSCAPING PROVIDED	----
	LANDSCAPE COVERAGE	---%
PARKING	PARKING REQ. (OFFICE)	60 STALLS
	PARKING REQ. (MEZZANINE)	40 STALLS
	PARKING REQ. (WAREHOUSE)	339 STALLS
	TOTAL REQUIRED PARKING	439 STALLS
	AUTO PARKING PROVIDED	243
	HANDICAP PARKING REQUIRED	----
	HANDICAP PARKING PROVIDED	8
	TOTAL PARKING PROVIDED	251
	TRAILER PARKING PROVIDED	251

SETBACK REQUIREMENTS

RIVERSIDE COUNTY ORDINANCE NO. 348.4818 SECTION 10.4 DEVELOPMENT STANDARDS (I-P ZONE).

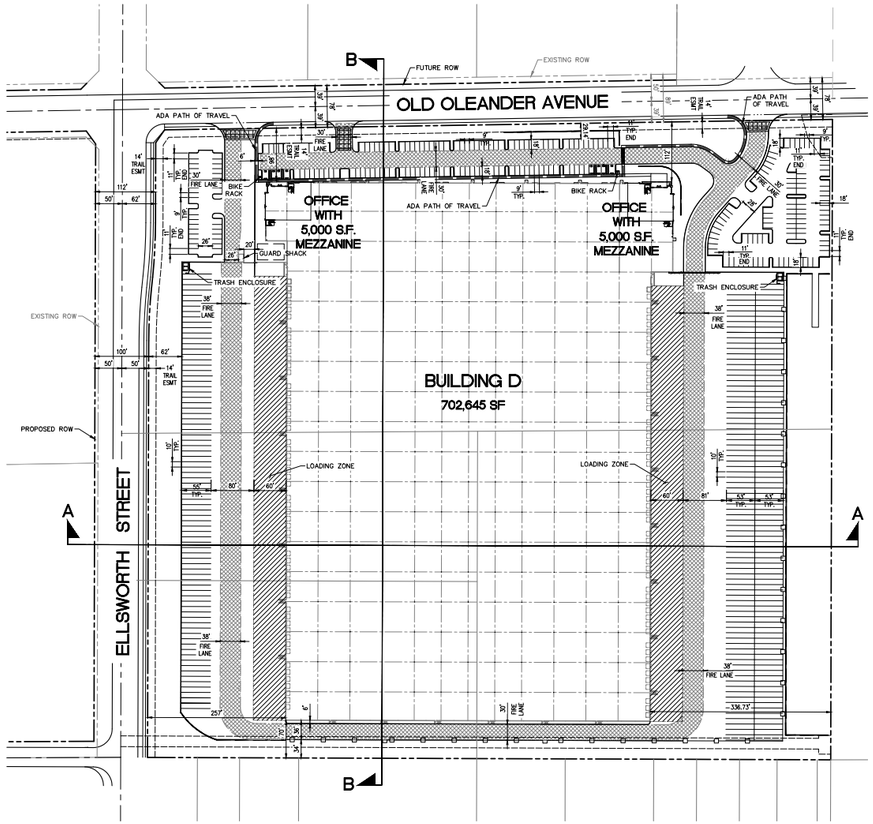
B. THE MAXIMUM HEIGHT OF ALL STRUCTURES, INCLUDING BUILDINGS, SHALL BE 35 FEET AT THE YARD SETBACK LINE. ANY PORTION OF A STRUCTURE THAT EXCEEDS 35 FEET IN HEIGHT SHALL BE SET BACK FROM EACH YARD SETBACK LINE NOT LESS THAN TWO FEET FOR EACH ONE FOOT IN HEIGHT THAT IS IN EXCESS OF 35 FEET. ALL BUILDINGS AND STRUCTURES SHALL NOT EXCEED 50 FEET IN HEIGHT, UNLESS A HEIGHT UP TO 75 FEET FOR BUILDINGS, OR 105 FEET FOR OTHER STRUCTURES IS SPECIFICALLY PERMITTED UNDER THE PROVISIONS OF SECTION 18.34. OF THIS ORDINANCE.

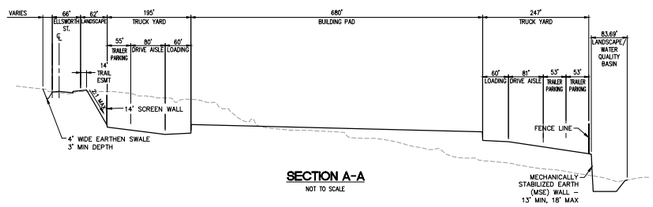
D. A MINIMUM 25 FOOT SETBACK SHALL BE REQUIRED ON ANY STREET. A MINIMUM TEN FOOT STRIP ADJACENT TO THE STREET LINE SHALL BE APPROPRIATELY LANDSCAPED AND MAINTAINED, EXCEPT FOR DESIGNATED PEDESTRIAN AND VEHICULAR ACCESS WAYS. THE REMAINDER OF THE SETBACK MAY BE USED FOR OFF-STREET AUTOMOBILE PARKING, DRIVEWAYS OR LANDSCAPING.

E. THE MINIMUM SIDE YARD SETBACK SHALL EQUAL NOT LESS THAN TEN FEET FOR THE TWO SIDE LOT AREAS COMBINED.

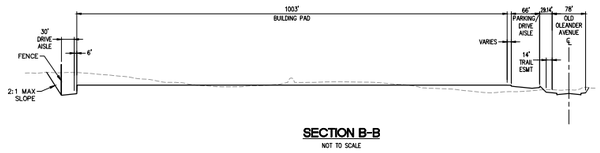
F. THE MINIMUM REAR YARD SETBACK SHALL BE 15 FEET.

G. A MINIMUM 50 FOOT SETBACK SHALL BE REQUIRED ON ANY BOUNDARY WHERE THE INDUSTRIAL PROPERTY ABUTS A RESIDENTIAL OR COMMERCIALLY ZONED PROPERTY. A MINIMUM OF 20 FEET OF THE SETBACK SHALL BE LANDSCAPED, UNLESS A TREE SCREEN IS APPROVED, IN WHICH CASE THE SETBACK AREA MAY BE USED FOR AUTOMOBILE PARKING, DRIVEWAYS OR LANDSCAPING. BLOCK WALLS OR OTHER FENCING MAY BE REQUIRED.





SECTION A-A
NOT TO SCALE



SECTION B-B
NOT TO SCALE

APPLICANT:
TRAMMELL CROW COMPANY
3501 JAMBOREE ROAD, SUITE 230
NEWPORT BEACH, CA 92660
PHONE: (949)477-4700

ENGINEER:
DAVID EVANS AND ASSOCIATES
17782 17TH STREET, SUITE 200
TUSTIN, CA 92780
PHONE: (714)965-4500

ARCHITECT:
HPA ARCHITECTURE
18831 BARDEEN AVENUE, SUITE 100
IRVINE, CA 92612
PHONE: (949)863-1770

UTILITY PURVEYORS:
WATER – EASTERN MUNICIPAL WATER DISTRICT
SEWER – EASTERN MUNICIPAL WATER DISTRICT
GAS – SOUTHERN CALIFORNIA GAS COMPANY
ELECTRIC – SOUTHERN CALIFORNIA EDISON COMPANY
TELEPHONE – VERIZON

LAND AREA:
37.08 GROSS ACRES
(2.61) ACRES ROAD DEDICATION
34.47 NET ACRES

EARTHWORK:
CUT: 192,500 CUBIC YARDS
FILL: 192,500 CUBIC YARDS
NET: BALANCED SITE

SCHOOL DISTRICT:
VAL VERDE UNIFIED SCHOOL DISTRICT

LAND USE / ZONING:
EXISTING ADDRESS:
APN 314-040-001: 22305 OLEANDER AVENUE, PERRIS, CA
APN 314-040-002: 18220 DECKER ROAD, PERRIS, CA
APN 314-040-003: NOT AVAILABLE
APN 314-040-008: NOT AVAILABLE

EXISTING LAND USE:
APN 314-040-001: LIGHT INDUSTRIAL
APN 314-040-002: BUSINESS PARK
APN 314-040-003: LIGHT INDUSTRIAL
APN 314-040-008: BUSINESS PARK

PROPOSED LAND USE: LIGHT INDUSTRIAL (LI)

EXISTING ZONING:
APN 314-040-001: M-M, I-P (MANUFACTURING – MEDIUM, INDUSTRIAL PARK)
APN 314-040-002: R-R (RURAL RESIDENTIAL)
APN 314-040-003: M-M, I-P (MANUFACTURING – MEDIUM, INDUSTRIAL PARK)
APN 314-040-008: R-R (RURAL RESIDENTIAL)

PROPOSED ZONING: I-P (INDUSTRIAL PARK)

LEGAL DESCRIPTION

CHICAGO TITLE COMPANY, ORDER NO. 00023898-001-PS, DATED SEPTEMBER 16, 2014.

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

PARCEL 1: APN 314-040-001

THE NORTH HALF OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 2, TOWNSHIP 4 SOUTH, RANGE 4 WEST, SAN BERNARDINO MERIDIAN, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT THEREOF.

PARCEL 2: APN 314-040-003

THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 2, TOWNSHIP 4 SOUTH, RANGE 4 WEST, SAN BERNARDINO MERIDIAN, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT THEREOF.

CHICAGO TITLE COMPANY, ORDER NO. 00023897-001-PS, DATED SEPTEMBER 12, 2014.

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

APN 314-040-002

THE SOUTH HALF OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 2, TOWNSHIP 4 SOUTH, RANGE 4 WEST, SAN BERNARDINO MERIDIAN, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT THEREOF.

CHICAGO TITLE COMPANY, ORDER NO. 00023901-001-PS, DATED SEPTEMBER 12, 2014.

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

APN 314-040-008

THE NORTH HALF OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 2, TOWNSHIP 4 SOUTH, RANGE 4 WEST, SAN BERNARDINO MERIDIAN, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT THEREOF.

NOTES:
1. THOMAS BROS. MAP PAGE 747, GRID B7 (2008 EDITION)
2. THE PROJECT AREA IS NOT SUBJECT TO LIQUIFACTION OR OTHER GEOLOGIC HAZARDS NOTED WITHIN ANY SPECIAL STUDIES ZONES
3. FEMA COMMUNITY PANEL 06065C1410G, ZONE X (OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN)
4. THIS PROJECT IS NOT WITHIN A SPECIFIC PLAN
5. THE PROJECT AREA IS NOT SUBJECT TO OVERFLOW INUNDATION OR FLOOD HAZARD
6. THE PROJECT DOES NOT INTEND TO USE SUBSURFACE SEPTIC SEWAGE
7. PROPOSED DEDICATION/EASEMENTS TO BE MADE BY SEPARATE DOCUMENTS
8. THIS PROJECT IS NOT PHASED
9. REFER TO ARCHITECTURAL PLANS FOR WALL AND FENCING DETAILS

EASEMENTS:
EASEMENT TO COUNTY OF RIVERSIDE FOR TEMPORARY DRAINAGE AND INCIDENTAL PURPOSES, RECORDED MARCH 31, 1994 AS INSTRUMENT NO. 94-136338 OF OFFICIAL RECORDS

EASEMENT TO VAL VERDE MUTUAL WATER COMPANY, A CORPORATION, FOR PIPELINES, RECORDED OCTOBER 27, 1915 AS IN BOOK 430, PAGE 345 OF DEEDS (EXACT LOCATION AND EXTENT OF SAID EASEMENT IS NOT DISCLOSED OF RECORD)

PROJECT DESCRIPTION:
THE 34.5 ACRE PROJECT SITE WILL BE DEVELOPED TO CONSTRUCT ONE 702,645 SQUARE FOOT INDUSTRIAL WAREHOUSE/DISTRIBUTION BUILDING CONSISTING OF 15,000 SQUARE FEET OF OFFICE SPACE, 10,000 SQUARE FEET OF MEZZANINE, AND 677,645 SQUARE FEET OF WAREHOUSE. THE SITE WILL CONTAIN 251 TRUCK/TRAILER PARKING STALLS (10'x53') AND 251 STANDARD (9'x18') AUTOMOBILE PARKING STALLS

LEGEND:
EX – EXISTING
FF – FINISH FLOOR
FL – FLOW LINE
FS – FINISH SURFACE
GB – GRADE BREAK
HP – HIGH POINT
INV – INVERT
SD – STORM DRAIN
SS – SANITARY SEWER
TC – TOP OF CURB
W – WATER

Source(s): David Evans and Associates (12-01-2016)

Figure 3-8

PLOT PLAN NO. 25838 (BUILDING D SITE)

3. Architecture, Walls, and Fences

Figure 3-9, *Conceptual Architecture Elevations – Building D*, depicts the conceptual architecture elevations proposed for Building D. Building D would be constructed to a height of approximately 40 feet above finished grade, with architectural projections reaching up to 44 feet. The building would be constructed with painted concrete tilt-up panels and low-reflective, blue-glazed glass. Articulated building elements, primarily at the building corners and along Oleander Avenue, are proposed as decorative elements. The exterior color palette for the proposed building is comprised of various mild, earth-toned colors, including various shades of beige, tan, and brown.

Painted concrete 14-foot tall tilt-up screen walls, with access gates, would be provided on the north and west sides of Building D facing Oleander Avenue and Ellsworth Street, to screen the loading bays and truck parking areas from public view. Eight-foot tall tube steel fencing would be provided along the western perimeter of the Building D Site. In addition, a concrete block retaining wall would be located along the site's southern and eastern boundaries, ranging from one to 23 feet in height.

4. Conceptual Landscaping Plan

The conceptual landscape plan is depicted in Figure 3-10, *Conceptual Landscape Plan – Building D*. Landscaping would be ornamental in nature and include trees, shrubs, accent plants, and a variety of groundcovers. As shown on Figure 3-10, trees and groundcover are proposed along the Building D Site's frontage with Oleander Avenue and Ellsworth Street. Landscaping also would occur at building entries, in and around automobile parking areas, in and around the Building D Site's water quality/detention basin, and along proposed screen walls. Landscaping would be ornamental, except in water quality/detention basins where plant materials would serve water quality functions. Prior to the issuance of a building permit to construct Building D, the Project Applicant would be required to submit final planting and irrigation plans to the County of Riverside for review and approval. The plans are required to comply with Riverside County Ordinance No. 859, which establishes requirements for landscape design, automatic irrigation system design, and water-use efficiency.

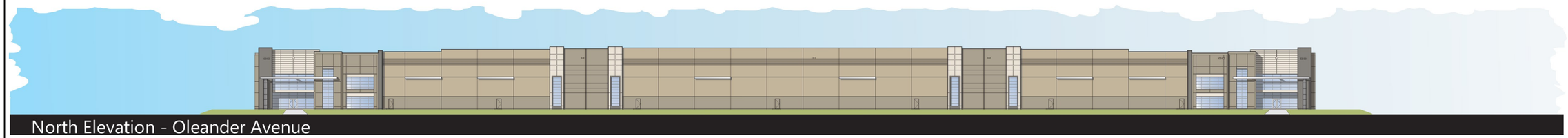
3.3.3 BUILDING E APPLICATIONS

A. General Plan Amendment No. 1152 (GPA 1152)

The Building E Site is designated "Community Development-Business Park (CD-BP)" by the Riverside County General Plan under existing conditions. GPA 1152 would change the land use designation from CD-BP to "Community Development-Light Industrial (CD-LI)." This EIR analyzes the effects of GPA 1152, as depicted on Figure 3-11, *General Plan Amendment – Building E Site*.

B. Change of Zone No. 7873 (CZ 7873)

The Building E Site is zoned "Rural Residential 1/2-Acre Lot Sizes (R-R-1/2)" and "Industrial Park (I-P)" under existing conditions. CZ 7873 would change the zoning designations of the portion of the property zoned R-R-1/2 to I-P so that the entire Building E Site is zoned I-P. This EIR analyzes the effects of CZ 7873, as depicted on Figure 3-12, *Change of Zone – Building E Site*.


North Elevation - Oleander Avenue


West Elevation - Ellsworth Street


South Elevation

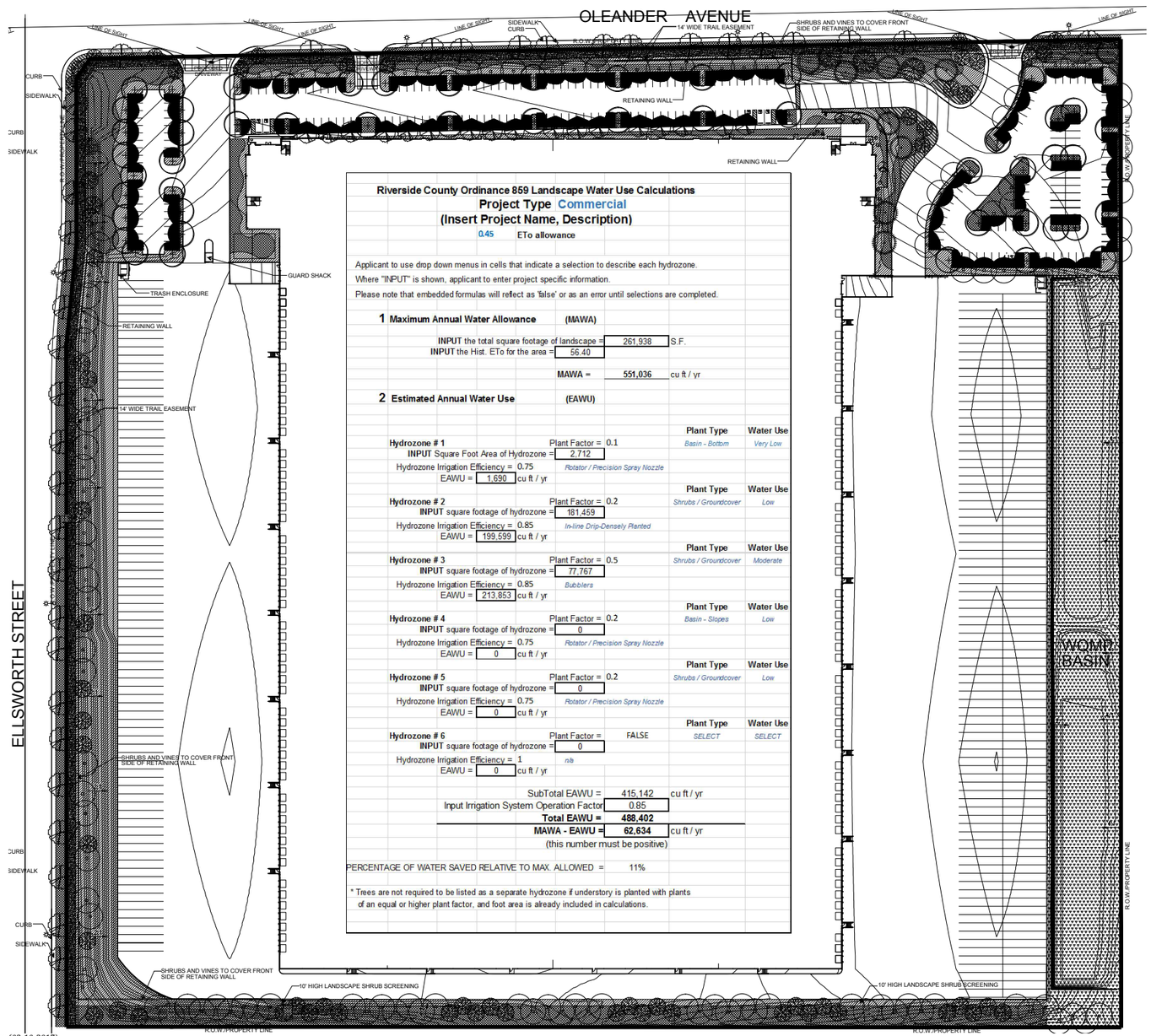

East Elevation

Source(s): HPA (07-29-2016)

Figure 3-9

NOT TO SCALE

CONCEPTUAL ARCHITECTURE ELEVATIONS - BUILDING D



Riverside County Ordinance 859 Landscape Water Use Calculations
Project Type Commercial
(Insert Project Name, Description)
0.45 ETo allowance

Applicant to use drop down menus in cells that indicate a selection to describe each hydrozone.
Where "INPUT" is shown, applicant to enter project specific information.
Please note that embedded formulas will reflect as 'false' or as an error until selections are completed.

1 Maximum Annual Water Allowance (MAWA)

INPUT the total square footage of landscape = 261,938 S.F.
INPUT the Hist. ETo for the area = 56.40

MAWA = 551,036 cu ft / yr

2 Estimated Annual Water Use (EAWU)

		Plant Type	Water Use
Hydrozone # 1	Plant Factor = 0.1	Basin - Bottom	Very Low
INPUT Square Foot Area of Hydrozone = 2,712			
Hydrozone Irrigation Efficiency = 0.75	Rotator / Precision Spray Nozzle		
EAWU = 1,690 cu ft / yr			
Hydrozone # 2	Plant Factor = 0.2	Shrubs / Groundcover	Low
INPUT square footage of hydrozone = 181,459			
Hydrozone Irrigation Efficiency = 0.85	In-line Drip-Densely Planted		
EAWU = 199,599 cu ft / yr			
Hydrozone # 3	Plant Factor = 0.5	Shrubs / Groundcover	Moderate
INPUT square footage of hydrozone = 77,767			
Hydrozone Irrigation Efficiency = 0.85	Bubblers		
EAWU = 213,853 cu ft / yr			
Hydrozone # 4	Plant Factor = 0.2	Basin - Slopes	Low
INPUT square footage of hydrozone = 0			
Hydrozone Irrigation Efficiency = 0.75	Rotator / Precision Spray Nozzle		
EAWU = 0 cu ft / yr			
Hydrozone # 5	Plant Factor = 0.2	Shrubs / Groundcover	Low
INPUT square footage of hydrozone = 0			
Hydrozone Irrigation Efficiency = 0.75	Rotator / Precision Spray Nozzle		
EAWU = 0 cu ft / yr			
Hydrozone # 6	Plant Factor = FALSE	SELECT	SELECT
INPUT square footage of hydrozone = 0			
Hydrozone Irrigation Efficiency = 1	n/a		
EAWU = 0 cu ft / yr			

SubTotal EAWU = 415,142 cu ft / yr
Input Irrigation System Operation Factor 0.85
Total EAWU = 488,402
MAWA - EAWU = 62,634 cu ft / yr
(this number must be positive)

PERCENTAGE OF WATER SAVED RELATIVE TO MAX. ALLOWED = 11%

* Trees are not required to be listed as a separate hydrozone if understory is planted with plants of an equal or higher plant factor, and foot area is already included in calculations.

PLANTING LEGEND

TREES

SYMBOL	BOTANICAL/COMMON NAME	SIZE	QTY	WUCOLS	REMARKS
	Cercidium chilensis Chilean Palo Verde	24" Box	20	L	Flowering canopy tree
	Chitalpa tashkentensis Chitalpa	24" Box	52	L	Flowering canopy tree
	Cupressus sempervirens Italian Cypress	24" Box	8	L	Vertical accent tree
	Heteromeles arbutifolia Toyon	15 Gal	9	L	Fruiting accent tree
	Koelreuteria bipinnata Chinese Flame Tree	36" Box	37	M	Flowering canopy tree
	Lagerstroemia i 'Muskogee' Crape Myrtle	24" Box	3	M	Flowering accent tree
	Quercus agrifolia Coast Live Oak	24" Box	3	L	Evergreen canopy tree
	Platanus racemosa Western Sycamore	24" Box	9	M	Deciduous screen tree
	Rhus lancea African Sumac	24" Box	112	L	Evergreen canopy tree
	Tristania conferta Brisbane Box	15 Gal	17	L	Evergreen canopy tree

SHRUBS

SYMBOL	BOTANICAL/COMMON NAME	SIZE	WUCOLS
	Acanthus mollis Bear's Breech	5 Gal	M
	Acca sellowiana Pineapple Guava	5 Gal	M
	Artemisia 'Powis Castle' Artemisia	5 Gal	L
	Buxus j. Green Beauty' Japanese Boxwood	5 Gal	M
	Callistemon 'Little John' Dwarf Bottle Brush	5 Gal	M
	Cistus 'Sunset Pink' Sunset Pink Rockrose	5 Gal	M
	Dodonaea viscosa 'Purpurea' Hopseed Bush	5 Gal	M
	Elaeagnus pungens Silverberry	5 Gal	L
	Leucophyllum f. 'Green Cloud' Texas Ranger	5 Gal	L
	Ligustrum j. Texanum Texas Privet	5 Gal	M
	Rhaphiolepis i. 'Springtime' Indian Hawthorn	5 Gal	M
	Rhamnus californica Coffeeberry	5 Gal	L
	Rhamnus c. 'Mound San Bruno' Dwarf Coffeeberry	5 Gal	L
	Rosmarinus o. 'Tuscan Blue' Rosemary	5 Gal	L
	Salvia c. 'Allen Chickering' Allen Chickering Sage	5 Gal	L
	Salvia greggii Autumn Sage	5 Gal	L
	Salvia leucantha Mexican Sage	5 Gal	L
	Senna artemisioides Feathery Cassia	5 Gal	L
	Westringia fruticosa Coast Rosemary	5 Gal	L

ACCENTS

SYMBOL	BOTANICAL/COMMON NAME	SIZE	WUCOLS
	Agave americana Century Plant	5 Gal	L
	Agave 'Blue Flame' Blue Flame Agave	5 Gal	L
	Agave 'Blue Glow Blue Glow Agave	5 Gal	L
	Agave desmeniana Smooth Agave	5 Gal	L
	Agave kissho Kan Var. Lucky Crown Agave	5 Gal	L
	Agave victoria-reginae Agave	5 Gal	L
	Agave villmoriniana Agave	5 Gal	L
	Aloe maculata Soap Aloe	5 Gal	L
	Aloe petricola Stone Aloe	1 Gal	L
	Aloe polyphylla Spiral Aloe	1 Gal	L
	Aloe striata Coral Aloe	1 Gal	L
	Dasylerion wheeleri Desert Spoon	5 Gal	L
	Echeveria 'Ruffles' Ruffles Echeveria	5 Gal	L
	Hesperaloe parviflora Red Yucca	5 Gal	L
	Lantana 'Gold Mound' Yellow Lantana	5 Gal	L

GROUNDCOVER

SYMBOL	BOTANICAL/COMMON NAME	SIZE	SPACING	WUCOLS
	Acacia redolens 'Low Boy' Dwarf Acacia	1 Gal	8' O.C.	L
	Baccharis p. 'Pigeon Point' Dwarf Coyote Bush	1 Gal	6' O.C.	L
	Festuca mairei Atlas Fescue	1 Gal	24" O.C.	M
	Festuca o. 'Glauca' Blue Fescue	1 Gal	12" O.C.	M
	Hemerocallis hybridus-Yellow Yellow Day Lily	1 Gal	24" O.C.	M
	Lantana 'Gold Mound' Yellow Lantana	1 Gal	36" O.C.	L
	Liriope gigantea Big Blue Lily Turf	1 Gal	24" O.C.	L
	Lonicera j. 'Halliana' Hall's Honeysuckle	1 Gal	48" O.C.	L
	Muhlenbergia capillaris Pink Muhly	1 Gal	36" O.C.	L
	Myoporum parvifolium Myoporum	1 Gal	36" O.C.	L
	Rosa 'Flower Carpet' -Red Red Flower Carpet Rose	1 Gal	30" O.C.	L
	Rosmarinus o. 'Huntington Carpet' Prostrate Rosemary	1 Gal	48" O.C.	L
	Salvia 'Bee's Bliss' Bee's Bliss Sage	1 Gal	48" O.C.	L
	Senecio mandraliscae Blue Fingers	4" Pots	12" O.C.	M
	Sesleria autumnalis Moor Grass	1 Gal	18" O.C.	M
	Trachelospermum jasminiodes Star Jasmine	1 Gal	24" O.C.	M
	Tulbaghia violacea Society Garlic	1 Gal	24" O.C.	M

DETENTION BASIN MIX
4 LBS/AC AGROSTIS PALLENS
5 LBS/AC NASSELLA CERNUA
3 LBS/AC HORDEUM DEPRESSUM
5 LBS/AC VULPIA MICROSTACHYS
2 LBS/AC MUHLENBERGIA MIROSPERMA

Parking Lot Shading
Required: 20,088 sf (50% of stalls)
Provided: 26,662 sf (66%)

Estimated shrub and groundcover quantities
5 Gal shrubs - 1,821 - 3-4' oc
1 Gal groundcover - 17,909 average 48" oc
Hydro-seed area - 54,250 sf

GENERAL NOTES
ALL LANDSCAPE AND IRRIGATION SHALL COMPLY WITH THE RIVERSIDE COUNTY ORDINANCE #859.3

ALL LANDSCAPE PLANTERS ADJACENT TO PARKING STALLS SHALL HAVE A 12" WIDE CONC. STEPOUT.

ALL TREES SHALL BE PLANTED WITH A LINEAR ROOT BARRIER WHEN LOCATED WITH 6 FEET OF ANY HARDSCAPE.

CONSTRUCTION CONSERVATION STATEMENT
THE IRRIGATION SYSTEM WILL BE DESIGNED UTILIZING 'STATE OF THE ART' IRRIGATION EQUIPMENT SUCH AS SMART CONTROLLERS, RAIN SHUT OFF DEVICES, MASTER VALVES AND FLOW SENSORS AND WATER EFFICIENT IRRIGATION HEADS.

PLANT MATERIAL IS SEPARATED BY HYDROZONES

3" MULCH LAYER

ALL IRRIGATION SYSTEMS WILL BE DESIGNED TO COMPLY WITH THE COUNTY OF RIVERSIDE'S ORDINANCE #859

GENERAL PARKING LOT SHADING CRITERIA
ALL PARKING AREAS EXCLUDING DRIVE AISLES SHALL RECEIVE A MIN. 50% SHADING UTILIZING AN ASSORTMENT OF EVERGREEN AND DECIDUOUS TREES. (CANOPY OF TREES WITH 15 YEARS OF AGE)

Prior to project construction, I agree to submit a complete Landscape Construction Document Package that complies with the the requirements of applicable ordinances, including but not necessarily limited to Ordinance No. 859.3; Ordinance 348, Ordinance 461; project Conditions of Approval; and in substantial conformance with the approved Landscape Concept Plan, Should the ordinances be revised, plans may be subject to change.

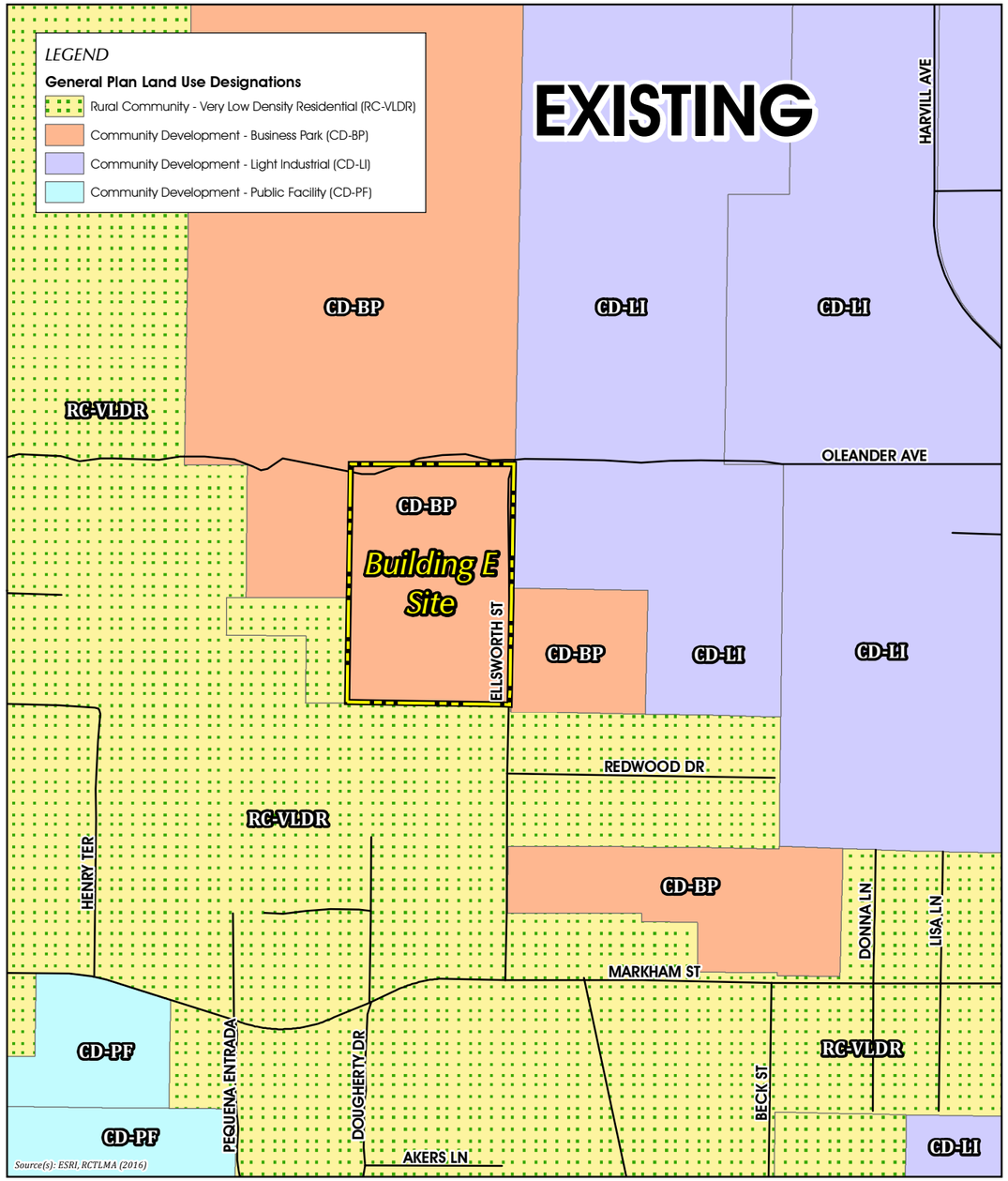
Proposed maintenance entity to be Hunter Landscape for the duration of the Maintenance Period ending after 60 days after sign off.

Source(s): Hunter Landscape (02-10-2017)

Figure 3-10

NOT TO SCALE

CONCEPTUAL LANDSCAPE PLAN - BUILDING D SITE



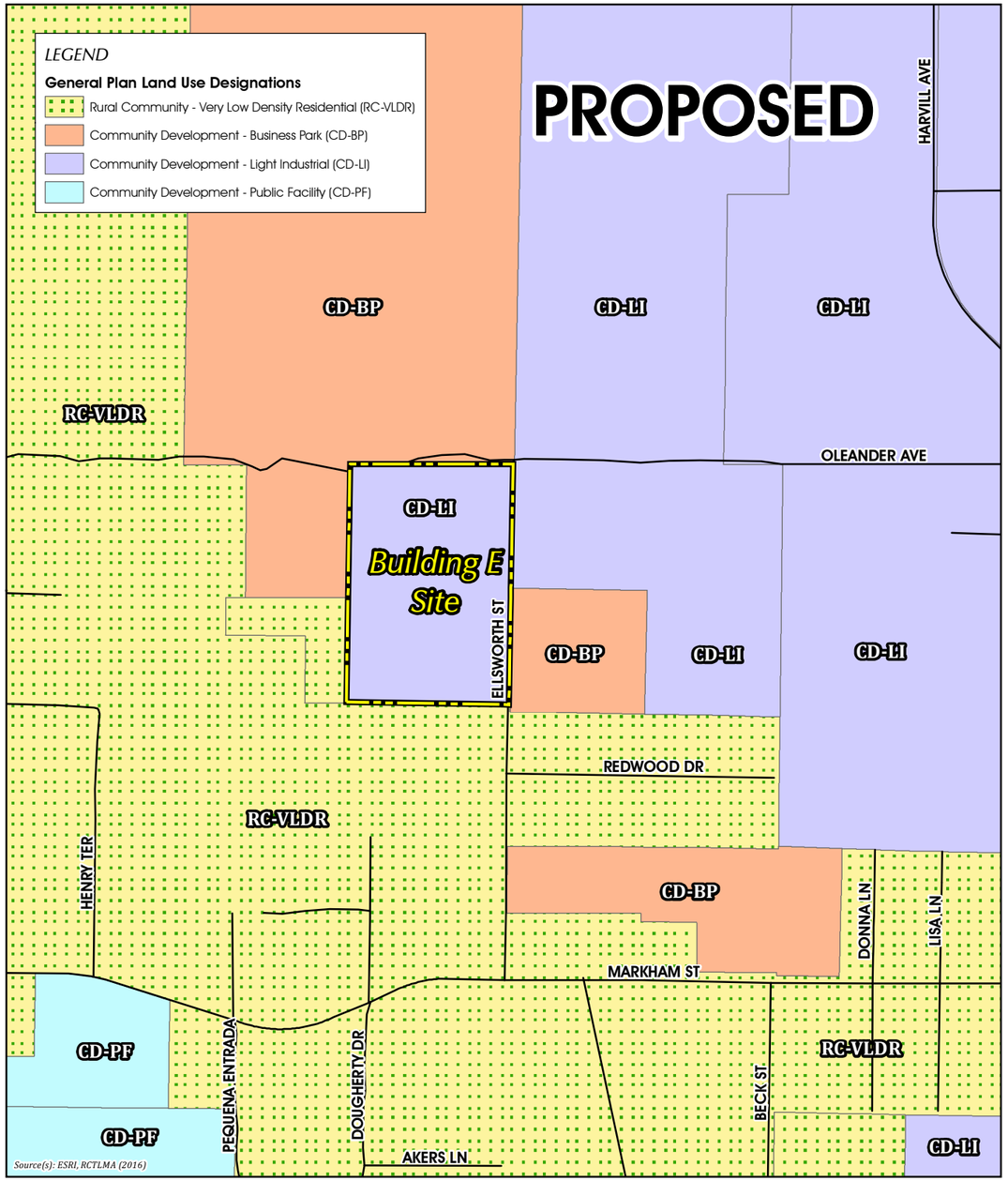
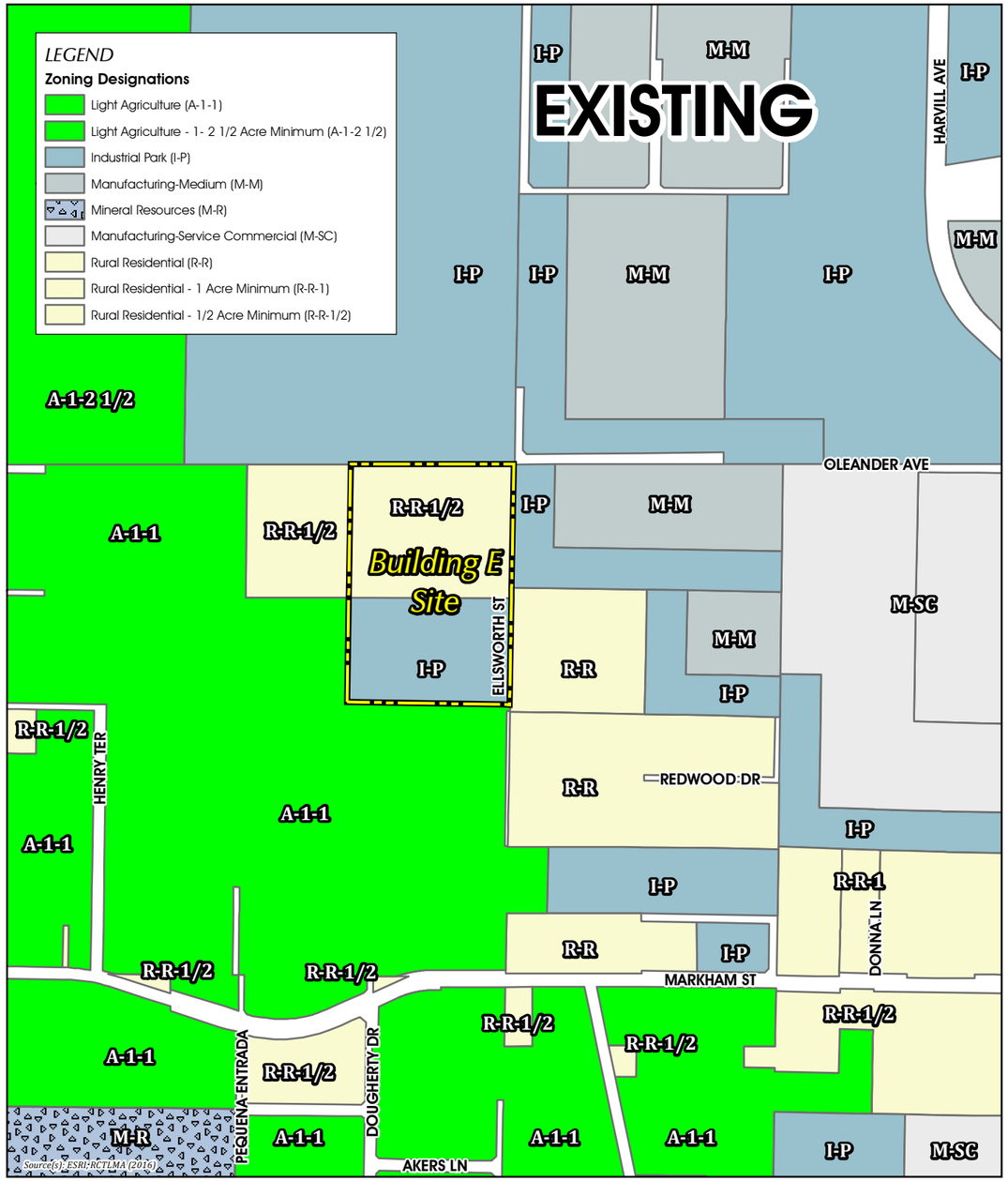


Figure 3-11

GENERAL PLAN AMENDMENT - BUILDING E SITE


EXISTING
LEGEND
Zoning Designations
Light Agriculture (A-1-1)
Light Agriculture - 1- 2 1/2 Acre Minimum (A-1-2 1/2)
Industrial Park (I-P)
Manufacturing-Medium (M-M)
Mineral Resources (M-R)
Manufacturing-Service Commercial (M-SC)
Rural Residential (R-R)
Rural Residential - 1 Acre Minimum (R-R-1)
Rural Residential - 1/2 Acre Minimum (R-R-1/2)
Building E Site
HARVILL AVE
OLEANDER AVE
ELLSWORTH ST
REDWOOD DR
HENRY TER
DONNA LN
MARKHAM ST
PEQUENA ENTRADA
DOUGHERTY DR
AKERS LN
Source(s): ESRI;RCTLMA (2016)

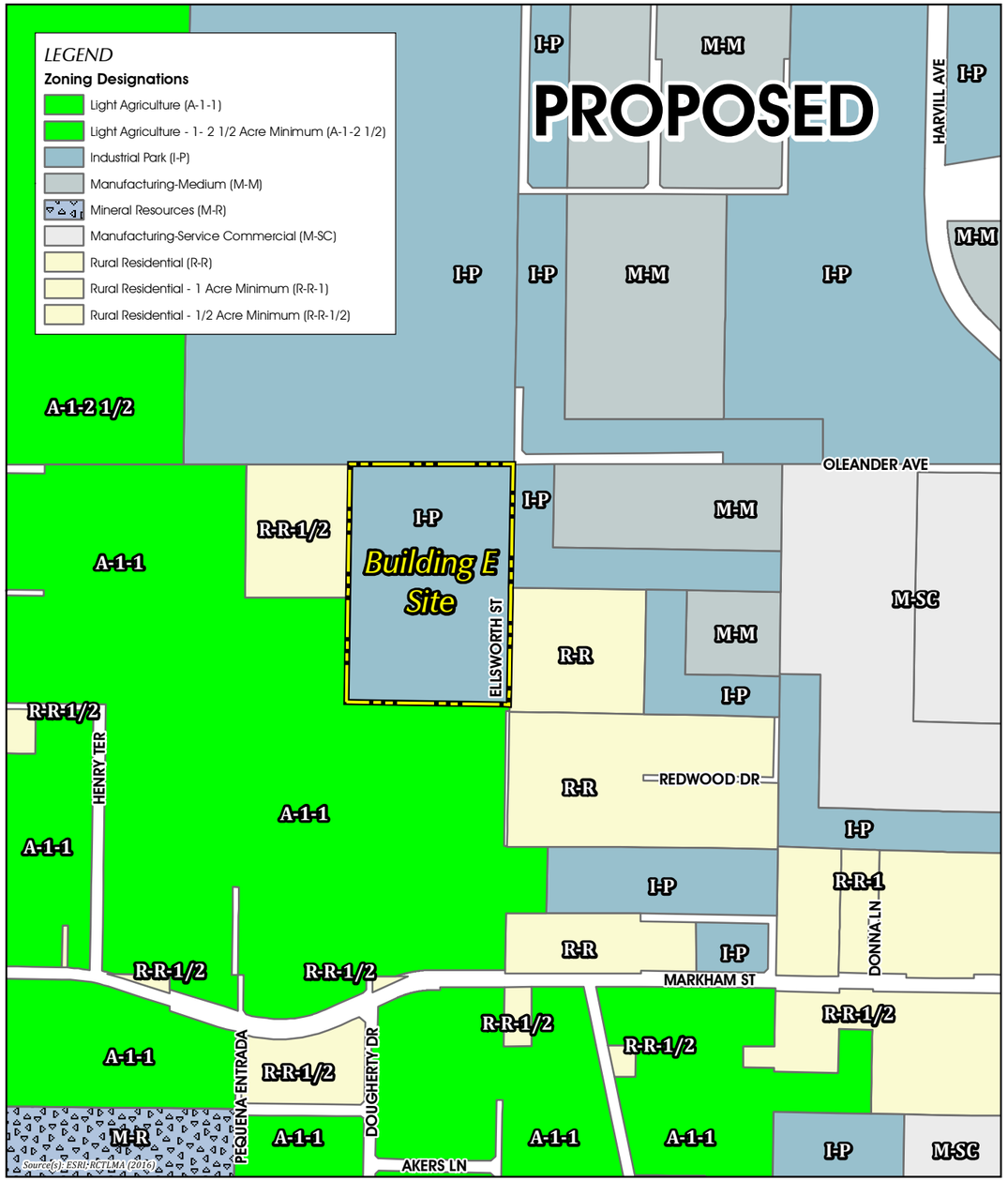

PROPOSED
LEGEND
Zoning Designations
Light Agriculture (A-1-1)
Light Agriculture - 1- 2 1/2 Acre Minimum (A-1-2 1/2)
Industrial Park (I-P)
Manufacturing-Medium (M-M)
Mineral Resources (M-R)
Manufacturing-Service Commercial (M-SC)
Rural Residential (R-R)
Rural Residential - 1 Acre Minimum (R-R-1)
Rural Residential - 1/2 Acre Minimum (R-R-1/2)
Building E Site
HARVILL AVE
OLEANDER AVE
ELLSWORTH ST
REDWOOD DR
HENRY TER
DONNA LN
MARKHAM ST
PEQUENA ENTRADA
DOUGHERTY DR
AKERS LN
Source(s): ESRI;RCTLMA (2016)

Figure 3-12

C. *Tentative Parcel Map No. 36962 (PM 36962)*

Tentative Parcel Map No. 36962 (PM 36962) proposes to consolidate the three parcels on the Building E Site into one, approximately 19.5 net-acre parcel, as depicted on Figure 3-13, *Tentative Parcel Map No. 36962 (Building E Site).* In addition, PM 36962 identifies the earthwork and stormwater drainage improvements needed on the Building E Site to support proposed development, as well as the roadway and utility infrastructure improvements required to support proposed development, as presented later in Subsection 3.4, *Technical Characteristics.*

1. Earthwork and Grading

Grading would occur over the entire Building E Site; no portion of the site would be left undisturbed. Proposed earthwork activities would result in approximately 80,000 cubic yards of cut and 80,000 cubic yard of fill. Based on the expected shrinkage and compaction of on-site soils, earthwork activities are expected to balance and no import or export of earthwork materials would be required. When grading is complete, manufactured slopes ranging from approximately four to 15 feet in height would occur along the south, east, and west perimeters of the property, and the Building E property would have a slight west-to-east-slope, as depicted on Figure 3-14, *Conceptual Grading Plan – Building E Site*. After grading, the highest point of the property would be its southwest corner (approximately 1,630 AMSL) and the lowest point of the property would be at the bottom of the detention basin near its northeast corner (approximately 1,588 AMSL). To accommodate the proposed grading concept, retaining walls ranging in height from one to seven feet tall would occur on the property. Also, a mechanically stabilized earth wall up to 18 feet in height is proposed along the west and south sides of the proposed water quality basin.

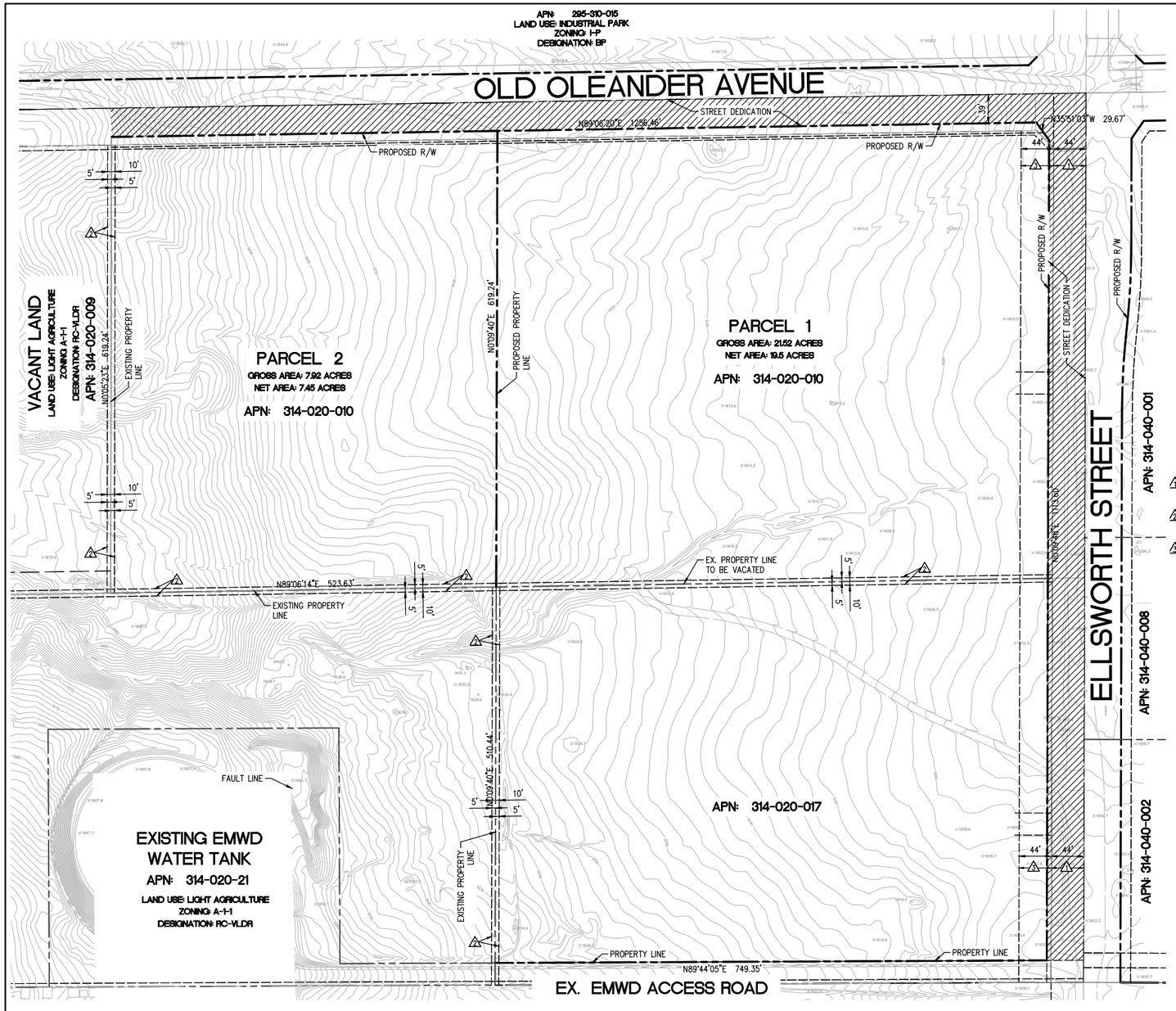
2. Stormwater Plan

A system of trench drains, drop inlets, underground storm drain pipes and basins, and a bioretention/detention basin are proposed to be installed on the Building E Site to collect,treat, and temporarily store stormwater runoff (as needed) before discharging treated flows from the property. First flush stormwater runoff flows (i.e., typically the first ¾ inch of initial surface runoff after a rainstorm, which contains the highest proportion of waterborne pollution) would be conveyed to a bioretention/detention basin located at the northeastern corner of the property. Stormwater runoff captured after the first flush would be discharged off-site via proposed connections to the Perris Valley MDP system. (DEA, 2017a, n.p.) Refer Subsection 3.4B for additional information regarding storm drain improvements.

D. *Plot Plan No. 25837*

1. General Description

The proposed building would contain 410,982 s.f. of building space, including 395,982 s.f. of warehouse floor space and 15,000 s.f. of ground floor office space. As shown on Figure 3-15, *Plot Plan No. 25837 (Building E Site),* proposed office spaces would be located at the northwest and



LEGEND

- STREET DEDICATION
- CENTER LINE
- EASEMENT
- EXISTING PROPERTY LINE
- PROPOSED R/W

LEGEND:

BMF – BEDROCK MILLING FEATURE
CL – CENTER LINE
ESMT – EASEMENT
EG – EXISTING GRADE
EX – EXISTING
FF – FINISHED FLOOR
FG – FINISHED GRADE
FH – FIRE HYDRANT
FL – FLOW LINE
FS – FINISHED SURFACE
GB – GRADE BREAK
HP – HIGH POINT
INV – INVERT
MH – MANHOLE
R/W – RIGHT OF WAY
SD – STORM DRAIN
SS – SANITARY SEWER
SF – SQUARE FEET
TC – TOP OF CURB
TYP – TYPICAL
W – WATER

NOTES:

1. THOMAS BROS. MAP PAGE 747, GRID B7 (2008 EDITION)
2. THE PROJECT AREA IS NOT SUBJECT TO LIQUIFACTION OR OTHER GEOLOGIC HAZARDS NOTED WITHIN ANY SPECIAL STUDIES ZONES
3. FEMA COMMUNITY PANEL 06065C1410G, ZONE X (OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN)
4. THIS PROJECT IS NOT WITHIN A SPECIFIC PLAN
5. THE PROJECT AREA IS NOT SUBJECT TO OVERFLOW INUNDATION OR FLOOD HAZARD
6. THE PROJECT DOES NOT INTEND TO USE SUBSURFACE SEPTIC SEWAGE
7. PROPOSED DEDICATION/EASEMENTS TO BE MADE BY SEPARATE DOCUMENTS
8. THIS PROJECT IS NOT PHASED
9. REFER TO ARCHITECTURAL PLANS FOR WALL AND FENCING DETAILS

EASEMENTS:

1. 44' WIDE EASEMENT TO THE COUNTY OF RIVERSIDE FOR PUBLIC ROAD, PUBLIC UTILITY, AND PUBLIC SERVICES USES RECORDED ON JUNE 5, 1973 AS INSTRUMENT NO. 1973-72894
2. 10' WIDE EASEMENT TO THE COUNTY OF RIVERSIDE FOR PUBLIC UTILITIES RECORDED ON DECEMBER 6, 1973 AS INSTRUMENT NO. 1973-157864
3. 44' WIDE EASEMENT TO THE COUNTY OF RIVERSIDE FOR PUBLIC UTILITIES RECORDED ON APRIL 25, 1980 AS INSTRUMENT NO. 1980-78836

PROJECT DESCRIPTION:

THE 21.52 ACRE PROJECT SITE WILL BE DEVELOPED TO CONSTRUCT ONE 410,982 SQUARE FOOT INDUSTRIAL WAREHOUSE/DISTRIBUTION BUILDING CONSISTING OF 15,000 SQUARE FEET OF OFFICE SPACE, AND 395,982 SQUARE FEET OF WAREHOUSE. THE SITE WILL CONTAIN 80 TRUCK/TRAILER PARKING STALLS (10'x53') AND 229 STANDARD (9'x16' WITH 2' OVERHANG) AUTOMOBILE PARKING STALLS, AND 7 HANDICAP PARKING STALLS (9x16' WITH 2' OVERHANG)

EASEMENTS:

1. 44' WIDE EASEMENT TO THE COUNTY OF RIVERSIDE FOR PUBLIC ROAD, PUBLIC UTILITY, AND PUBLIC SERVICES USES RECORDED ON JUNE 5, 1973 AS INSTRUMENT NO. 1973-72894
2. 10' WIDE EASEMENT TO THE COUNTY OF RIVERSIDE FOR PUBLIC UTILITIES RECORDED ON DECEMBER 6, 1973 AS INSTRUMENT NO. 1973-157864
3. 44' WIDE EASEMENT TO THE COUNTY OF RIVERSIDE FOR PUBLIC UTILITIES RECORDED ON APRIL 25, 1980 AS INSTRUMENT NO. 1980-78836

APPLICANT:

TRAMMELL CROW COMPANY
3501 JAMBOREE ROAD, SUITE 230
NEWPORT BEACH, CA 92660
PHONE: (949)477-4700

UTILITY PURVEYORS:

WATER – EASTERN MUNICIPAL WATER DISTRICT
SEWER – EASTERN MUNICIPAL WATER DISTRICT
GAS – SOUTHERN CALIFORNIA GAS COMPANY
ELECTRIC – SOUTHERN CALIFORNIA EDISON COMPANY
TELEPHONE – VERIZON

OWNER:

PARCEL 1A AND 2 (APN-314-020-010)
C R COUSINS INC/
HARRY AND ROY MURANAKA
PO BOX 8360, PORTER RANCH, CA 91327
TEL: (818) 491-0638

PARCEL 1B (APN-314-020-017)
JACK ROBERT RECH
2447 ALAMO HEIGHTS DR,
DIAMOND BAR CA 91765
TEL: (909) 263-6969

ENGINEER:

DAVID EVANS AND ASSOCIATES
17782 17TH STREET, SUITE 200
TUSTIN, CA 92780
PHONE: (714)665-4500

ARCHITECT:

HPA ARCHITECTURE
18831 BARDEEN AVENUE, SUITE 100
IRVINE, CA 92612
PHONE: (949)863-1770

SCHOOL DISTRICT:

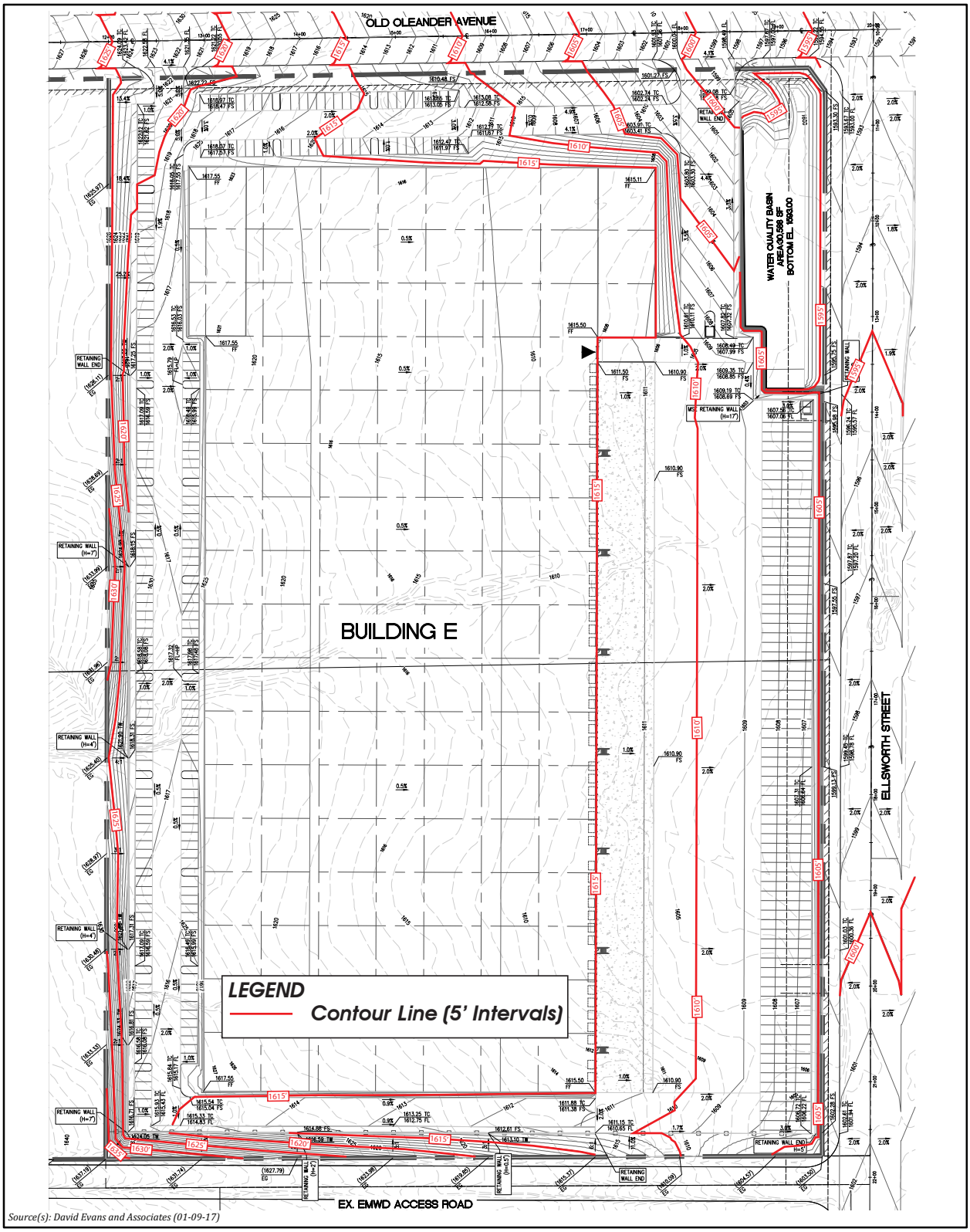
VAL VERDE UNIFIED SCHOOL DISTRICT

Source(s): David Evans and Associates (01-17-2017)

Figure 3-13

NOT TO SCALE

TENTATIVE PARCEL MAP NO. 36962 (BUILDING E SITE)

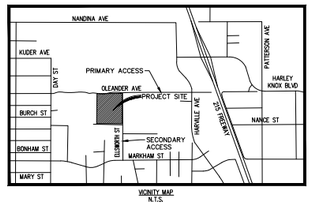


Source(s): David Evans and Associates (01-09-17)

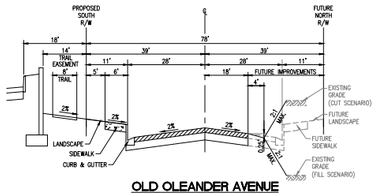
Figure 3-14

NOT TO SCALE

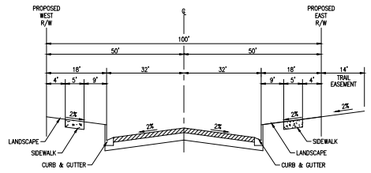
CONCEPTUAL GRADING PLAN - BUILDING E SITE



VICINITY MAP
N.T.S.



OLD OLEANDER AVENUE
NOT TO SCALE
INDUSTRIAL COLLECTOR STREET – STD. NO. 111



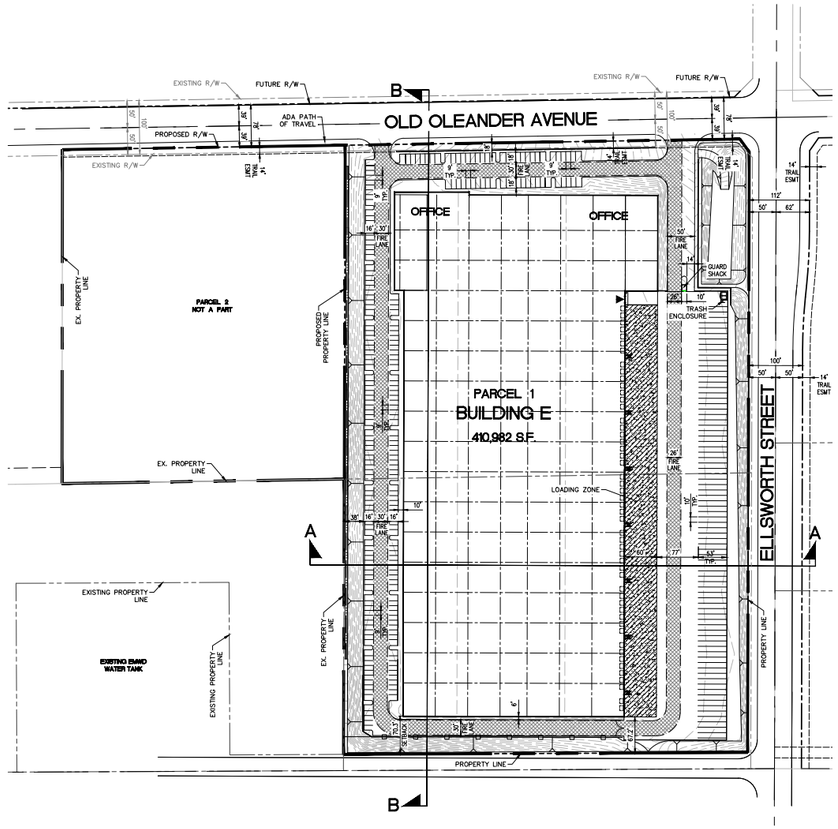
ELLSWORTH STREET
NOT TO SCALE
SECONDARY HIGHWAY – STD. NO. 94

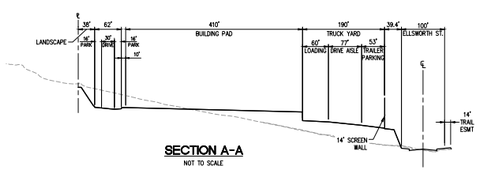
SITE TABULATION:

SITE	GROSS AREA	21.52 ACRES
	PROPOSED NET AREA	19.5 ACRES
BUILDING	OFFICE	15,000 SF
	WAREHOUSE	395,982 SF
	TOTAL BUILDING AREA	410,982 SF
	LOADING BAYS	51
	F.A.R.	0.60
	HEIGHT	50 FT
LANDSCAPE	LANDSCAPING REQUIRED (15%)	127,411 SF
	LANDSCAPING PROVIDED	186,849 SF
	LANDSCAPE COVERAGE	19.6%
PARKING	PARKING REQ. (OFFICE) 1 STALL/250 SF	60 STALLS
	PARKING REQ. (WAREHOUSE) 1 STALL/2000 SF	198 STALLS
	TOTAL REQUIRED PARKING	258 STALLS
	TRUCK/TRAILER PARKING PROVIDED	80
	STANDARD PARKING PROVIDED	229
	HANDICAP PARKING REQUIRED	7
	HANDICAP PARKING PROVIDED	7
	TOTAL PARKING PROVIDED	236

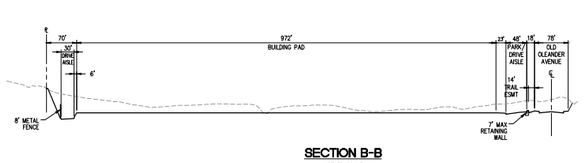
LEGEND

NEW AC PAVEMENT
NEW PCC PAVEMENT
STREET DEDICATION
ADA PATH OF TRAVEL
CENTER LINE
EASEMENT
METAL FENCE
RETAINING WALL
PROPOSED R/W
SETBACK
TRENCH DRAIN
TOP OF SLOPE
BOT OF SLOPE





SECTION A-A
NOT TO SCALE



SECTION B-B
NOT TO SCALE

APPLICANT:
TRAMMELL CROW COMPANY
3501 JAMBOREE ROAD, SUITE 230
NEWPORT BEACH, CA 92660
PHONE: (949)477-4700

ENGINEER:
DAVID EVANS AND ASSOCIATES
17782 17TH STREET, SUITE 200
TUSTIN, CA 92780
PHONE: (714)665-4500

ARCHITECT:
HPA ARCHITECTURE
18831 BARDEEN AVENUE, SUITE 100
IRVINE, CA 92612
PHONE: (949)863-1770

SCHOOL DISTRICT:
VAL VERDE UNIFIED SCHOOL DISTRICT

LAND USE / ZONING:
EXISTING ADDRESS:
APN 314-020-010: 22405 OLEANDER AVE, PERRIS ,CA 92570
APN 314-020-017: 18215 ELLSWORTH ST, PERRIS, CA 92570
APN 314-020-019: NOT AVAILABLE

EXISTING LAND USE:
APN 314-020-010: BUSINESS PARK
APN 314-020-017: LIGHT INDUSTRIAL
APN 314-020-019: RURAL COMMUNITY–VERY LOW DENSITY RESIDENTIAL

PROPOSED LAND USE: LIGHT INDUSTRIAL (LI)

EXISTING ZONING:
APN 314-020-010: R-R-1/2 (RURAL RESIDENTIAL)
APN 314-020-017: I-P (INDUSTRIAL PARK)
APN 314-020-019: A-1-1 (LIGHT INDUSTRIAL)

PROPOSED ZONING: I-P (INDUSTRIAL PARK)

LEGAL DESCRIPTION:
FROM THE PRELIMINARY TITLE REPORT ORDER NO.: 00029420-001-PS

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

PARCEL 3 AS SHOWN ON PARCEL MAP 5042, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, ON FILE IN BOOK 8 PAGE 84 OF PARCEL MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

EXCEPTING THEREFROM THAT PORTION CONVEYED TO THE COUNTY OF RIVERSIDE BY DEED RECORDED APRIL 20, 1992 AS INSTRUMENT NO. 139450, OFFICIAL RECORDS.

FROM THE PRELIMINARY TITLE REPORT ORDER NO.: 00029418-001-X23

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

PARCEL 4 AS SHOWN ON PARCEL MAP 5042, IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, ON FILE IN BOOK 8 PAGE 84 OF PARCEL MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

EXCEPTING THEREFROM THAT PORTION CONDEMNED TO THE COUNTY OF RIVERSIDE BY FINAL ORDER OF CONDEMNATION RECORDED NOVEMBER 1, 1993 AS INSTRUMENT NO. 93-503848, OF OFFICIAL RECORDS.

APN: 314-020-019

FROM THE PRELIMINARY TITLE REPORT ORDER NO.: 00029422-001-PS

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

PARCEL 2 OF PARCEL MAP NO. 5042, COUNTY RIVERSIDE, STATE OF CALIFORNIA, AS PER MAP FILED IN BOOK 8, PAGE 84 OF PARCEL MAPS IN OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

APN: 314-020-010

NOTES:
1. THOMAS BROS. MAP PAGE 747, GRID B7 (2008 EDITION)
2. THE PROJECT AREA IS NOT SUBJECT TO LIQUIFACTION OR OTHER GEOLOGIC HAZARDS NOTED WITHIN ANY SPECIAL STUDIES ZONES
3. FEMA COMMUNITY PANEL 06065C1410G, ZONE X (OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN)
4. THIS PROJECT IS NOT WITHIN A SPECIFIC PLAN
5. THE PROJECT AREA IS NOT SUBJECT TO OVERFLOW INUNDATION OR FLOOD HAZARD
6. THE PROJECT DOES NOT INTEND TO USE SUBSURFACE SEPTIC SEWAGE
7. PROPOSED DEDICATION/EASEMENTS TO BE MADE BY SEPARATE DOCUMENTS
8. THIS PROJECT IS NOT PHASED
9. REFER TO ARCHITECTURAL PLANS FOR WALL AND FENCING DETAILS

EASEMENTS:
44' WIDE EASEMENT TO THE COUNTY OF RIVERSIDE FOR PUBLIC ROAD, PUBLIC UTILITY, AND PUBLIC SERVICES USES RECORDED ON JUNE 5, 1973 AS INSTRUMENT NO. 1973-72894

10' WIDE EASEMENT TO THE COUNTY OF RIVERSIDE FOR PUBLIC UTILITIES RECORDED ON DECEMBER 6, 1973 AS INSTRUMENT NO. 1973-157864

44' WIDE EASEMENT TO THE COUNTY OF RIVERSIDE FOR PUBLIC UTILITIES RECORDED ON APRIL 25, 1980 AS INSTRUMENT NO. 1980-78836

PROJECT DESCRIPTION:
THE 21.52 ACRE PROJECT SITE WILL BE DEVELOPED TO CONSTRUCT ONE 410,982 SQUARE FOOT INDUSTRIAL WAREHOUSE/DISTRIBUTION BUILDING CONSISTING OF 15,000 SQUARE FEET OF OFFICE SPACE, AND 395,982 SQUARE FEET OF WAREHOUSE. THE SITE WILL CONTAIN 80 TRUCK/TRAILER PARKING STALLS (10'x53') AND 229 STANDARD (9'x18' WITH 2' OVERHANG) AUTOMOBILE PARKING STALLS, AND 7 HANDICAP PARKING STALLS (9x18' WITH 2' OVERHANG)

UTILITY PURVEYORS:
WATER – EASTERN MUNICIPAL WATER DISTRICT
SEWER – EASTERN MUNICIPAL WATER DISTRICT
GAS – SOUTHERN CALIFORNIA GAS COMPANY
ELECTRIC – SOUTHERN CALIFORNIA EDISON COMPANY
TELEPHONE – VERIZON

LAND AREA:
21.52 GROSS ACRES
(2.02) ACRES ROAD DEDICATION
19.5 NET ACRES

EARTHWORK:
CUT: 80,000 CUBIC YARDS
FILL: 80,000 CUBIC YARDS
NET: BALANCED SITE

LEGEND:
BMF – BEDROCK MILLING FE/
CL – CENTER LINE
ESMT – EASEMENT
EG – EXISTING GRADE
EX – EXISTING
FF – FINISHED FLOOR
FG – FINISHED GRADE
FH – FIRE HYDRANT
FL – FLOW LINE
FS – FINISHED SURFACE
GB – GRADE BREAK
HP – HIGH POINT
INV – INVERT
MH – MANHOLE
R/W – RIGHT OF WAY
SD – STORM DRAIN
SS – SANITARY SEWER
SF – SQUARE FEET
TC – TOP OF CURB
TYP – TYPICAL
W – WATER

Source(s): David Evans and Associates (01-17-2017)

Figure 3-15

PLOT PLAN NO. 25837 (BUILDING E SITE)

northeast corners of the building. Vehicular access to Building E would be provided by two driveways connecting to Oleander Avenue, with the western driveway for passenger cars and the eastern driveway for trucks. The Project also proposes the option to add another passenger car driveway between the two driveways. All driveways on the Building E Site would be stop-sign controlled. Access to the proposed loading and truck parking areas located interior to the Building E Site would be gated. Proposed truck check-in points and driveways are positioned interior to the Building E Site to create interior queuing areas and minimize the potential trucks accessing the property to stack onto Oleander Avenue.

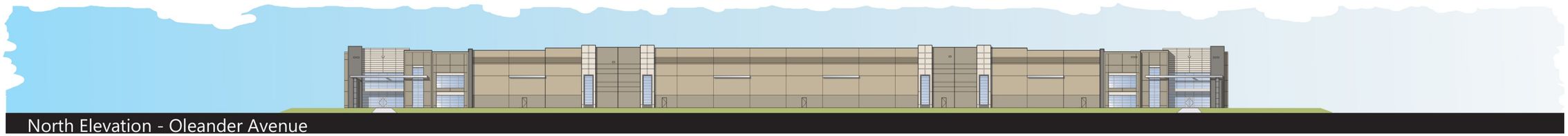
2. Parking and Loading

Figure 3-15 depicts the proposed locations of parking spaces and loading docks for Building E. Building E would provide approximately 229 passenger vehicle parking spaces distributed on the north and the west sides of the building, seven handicap parking spaces, and approximately 80 truck trailer parking stalls distributed on the east side of the building. Bicycle parking would be provided in compliance with Riverside County Ordinance No. 348, Article XVII, Section 18.12.D, *Bicycle Parking Facilities*, which requires one space for every 25 passenger vehicle parking spaces. Building E would include 51 loading docks (also called "bays") on the east side of the building to be used for the loading, unloading, and short-term parking of trucks. Loading dock positions facilitate operations inside the building. When trucks have the option to dock close to the area where their cargo is sorted and stored inside the structure, workers inside the building have a shorter distance to cover when moving goods between the exterior docks and interior storage areas.

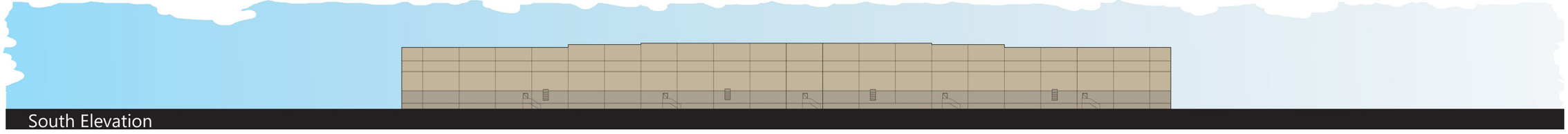
3. Architecture, Walls, and Fences

Figure 3-16, *Conceptual Architecture Elevations – Building E*, depicts the conceptual architecture elevations proposed for Building E. Building E would be constructed to a height of approximately 40 feet above finished grade, with architectural projections reaching up to 44 feet. The building would be constructed with painted concrete tilt-up panels and low reflective, blue-glazed glass. Articulated building elements, primarily at the building corners and along Oleander Avenue, are proposed to be provided as decorative elements. The exterior color palette for the proposed building is comprised of various mild, earth-toned colors, including shades of beige, tan, and brown.

Painted concrete 14-foot tall tilt-up screen walls, with access gates, would be provided on the north side of Building E, facing Oleander Avenue, to screen the loading bays and truck parking areas from public view. Eight-foot tall fencing would be provided along the western and southern perimeter of the Building E Site. In addition, a concrete block retaining wall would be located along the site's southwestern and eastern boundaries, ranging from one to seven feet in height. Also, a mechanically stabilized earth wall up to 18 feet in height is proposed along the west and south sides of the proposed water quality basin.


North Elevation - Oleander Avenue


West Elevation


South Elevation


East Elevation - Ellsworth Street

Source(s): HPA (07-29-2016)

Figure 3-16

NOT TO SCALE

CONCEPTUAL ARCHITECTURE ELEVATIONS - BUILDING E

4. Conceptual Landscaping Plan

The conceptual landscape plan is depicted in Figure 3-17, *Conceptual Landscape Plan – Building E Site*. Proposed landscaping would be ornamental in nature and would feature trees, shrubs, and drought-tolerant accent plants in addition to a variety of groundcovers. As shown on Figure 3-17, trees and groundcover are proposed along the site's frontage with Oleander Avenue and Ellsworth Street (including landscaping within the public right-of-way). Landscaping also would occur at building entries, in and around automobile parking areas, in and around the Building E site's water quality/detention basins, and along proposed screen walls. Proposed landscaping would be ornamental, except within water quality/detention basin where plant materials would be selected to serve water quality functions. Prior to the issuance of a building permit to construct Building E, the Project Applicant would be required to submit final planting and irrigation plans to the County of Riverside for review and approval. The plans are required to comply with Riverside County Ordinance No. 859, which establishes requirements for landscape design, automatic irrigation system design, and water-use efficiency.

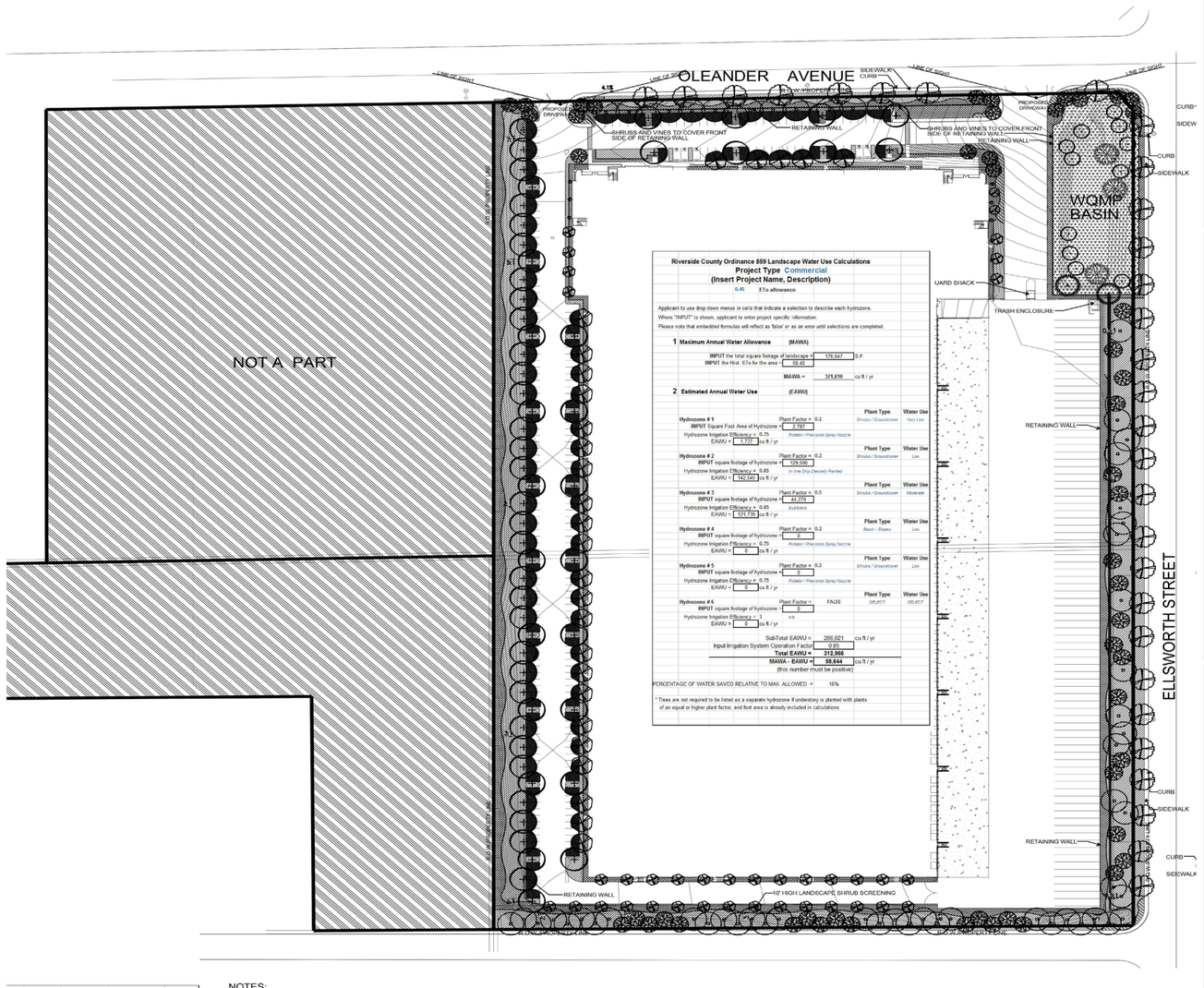
3.4 TECHNICAL CHARACTERISTICS

A. Public Roadway Improvements and Dedications

Public roadway improvements that are proposed as part of the Project include the following:

Oleander Avenue. Oleander Avenue is an east-west oriented roadway that abuts the northern property boundaries of the Building D and Building E Sites. The Project would construct Oleander Avenue along the Building D and Building E property frontages, including pavement, curb, gutter, sidewalk, and landscape parkway improvements, to its ultimate half-width section as an Industrial Collector Street (78-foot-wide public right-of-way, County Standard No. 111). A 14-foot-wide trail easement also would be provided along the Project site frontage. In addition, the Project would construct a paved, 18-foot-wide vehicular travel way on the northern half of Oleander Avenue to ensure adequate vehicular access for two-way traffic. Proposed improvements to Oleander Avenue would conform to applicable County of Riverside Transportation Department standards. Refer to Figure 3-18, *Roadway Cross-Sections*, for an illustration of proposed improvements to Oleander Avenue.

- **Ellsworth Street.** Ellsworth Street is a north-south oriented roadway that bisects the Project site and separates the Building D Site (located to the east of Ellsworth Street) from the Building E Site (located to the west of Ellsworth Street). The Project would construct Ellsworth Street from the southern Project site boundary to the northern Project site boundary (i.e., along the western frontage of the Building D Site and the eastern frontage of the Building E Site), including pavement, curb, gutter, sidewalk, and landscape parkway improvements, to provide its ultimate full-width section as a Secondary Highway (100-foot-wide public right-of-way, County Standard No. 94). In addition, a 14-foot trail



PLANTING LEGEND

TREES

SYMBOL	BOTANICAL/COMMON NAME	SIZE	QTY	WUCOLS	REMARKS
	Cercidium chilensis Chilean Palo Verde	24" Box	19	L	Flowering canopy tree
	Chitalpa tashkentensis Chitalpa	24" Box	58	L	Flowering canopy tree
	Cupressus sempervirens Italian Cypress	24" Box	6	L	Vertical accent tree
	Heteromeles arbutifolia Toyon	15 Gal	11	L	Fruiting accent tree
	Koelreuteria bipinnata Chinese Flame Tree	36" Box	30	M	Flowering canopy tree
	Lagerstroemia i 'Muskogee' Crape Myrtle	24" Box	2	M	Flowering accent tree
	Quercus agrifolia Coast Live Oak	24" Box	3	L	Evergreen canopy tree
	Platanus racemosa Western Sycamore	24" Box	2	M	Deciduous screen tree
	Rhus lancea African Sumac	24" Box	56	L	Evergreen canopy tree
	Tristania conferta Brisbane Box	15 Gal	62	L	Evergreen canopy tree

SHRUBS

SYMBOL	BOTANICAL/COMMON NAME	SIZE	WUCOLS
	Acanthus mollis Bear's Breech	5 Gal	M
	Acca sellowiana Pineapple Gauva	5 Gal	M
	Artemisia 'Powis Castle' Artemisia	5 Gal	L
	Buxus j. 'Green Beauty' Japanese Boxwood	5 Gal	M
	Callistemon 'Little John' Dwarf Bottle Brush	5 Gal	M
	Cistus 'Sunset Pink' Sunset Pink Rockrose	5 Gal	M
	Dodonaea viscosa 'Purpurea' Hopseed Bush	5 Gal	M
	Elaeagnus pungens Silverberry	5 Gal	L
	Leucophyllum f. 'Green Cloud' Texas Ranger	5 Gal	L
	Ligustrum j. Texanum Texas Privet	5 Gal	M
	Rhaphiolepis i. 'Springtime' Indian Hawthorn	5 Gal	M
	Rhamnus californica Coffeeberry	5 Gal	L
	Rhamnus c. 'Mound San Bruno' Dwarf Coffeeberry	5 Gal	L
	Rosmarinus o. 'Tuscan Blue' Rosemary	5 Gal	L
	Salvia c. 'Allen Chickering' Allen Chickering Sage	5 Gal	L
	Salvia greggii Autumn Sage	5 Gal	L
	Salvia leucantha Mexican Sage	5 Gal	L
	Senna artemisioides Feathery Cassia	5 Gal	L
	Westringia fruticosa Coast Rosemary	5 Gal	L

ACCENTS

SYMBOL	BOTANICAL/COMMON NAME	SIZE	WUCOLS
	Agave americana Century Plant	5 Gal	L
	Agave 'Blue Flame' Blue Flame Agave	5 Gal	L
	Agave 'Blue Glow Blue Glow Agave	5 Gal	L
	Agave desmeniana Smooth Agave	5 Gal	L
	Agave kissho Kan Var. Lucky Crown Agave	5 Gal	L
	Agave victoria-reginae Agave	5 Gal	L
	Agave villmoriniana Agave	5 Gal	L
	Aloe maculata Soap Aloe	5 Gal	L
	Aloe petricola Stone Aloe	1 Gal	L
	Aloe polyphylla Spiral Aloe	1 Gal	L
	Aloe striata Coral Aloe	1 Gal	L
	Dasylerion wheeleri Desert Spoon	5 Gal	L
	Echeveria 'Ruffles' Ruffles Echeveria	5 Gal	L
	Hesperaloe parviflora Red Yucca	5 Gal	L
	Lantana 'Gold Mound' Yellow Lantana	5 Gal	L

GROUNDCOVER

SYMBOL	BOTANICAL/COMMON NAME	SIZE	SPACING	WUCOLS
	Acacia redolens 'Low Boy' Dwarf Acacia	1 Gal	8' O.C.	L
	Baccharis p. 'Pigeon Point' Dwarf Coyote Bush	1 Gal	6' O.C.	L
	Festuca mairei Altas Fescue	1 Gal	24" O.C.	M
	Festuca o. 'Glauca' Blue Fescue	1 Gal	12" O.C.	M
	Hemerocallis hybridus-Yellow Yellow Day Lily	1 Gal	24" O.C.	M
	Lantana 'Gold Mound' Yellow Lantana	1 Gal	36" O.C.	L
	Liriope gigantea Big Blue Lily Turf	1 Gal	24" O.C.	L
	Lonicera j. 'Halliana' Hall's Honeysuckle	1 Gal	48" O.C.	L
	Muhlenbergia capillaris Pink Muhly	1 Gal	36" O.C.	L
	Myoporum parvifolium Myoporum	1 Gal	36" O.C.	L
	Rosa 'Flower Carpet' -Red Red Flower Carpet Rose	1 Gal	30" O.C.	L
	Rosmarinus o. 'Huntington Carpet' Prostrate Rosemary	1 Gal	48" O.C.	L
	Salvia 'Bee's Bliss' Bee's Bliss Sage	1 Gal	48" O.C.	L
	Senecio mandraliscae Blue Fingers	4" Pots	12" O.C.	M
	Sesleria autumnalis Moor Grass	1 Gal	18" O.C.	M
	Trachelospermum jasminiodes Star Jasmine	1 Gal	24" O.C.	M
	Tulbaghia violacea Society Garlic	1 Gal	24" O.C.	M

DETENTION BASIN MIX
4 LBS/AC AGROSTIS PALLENS
5 LBS/AC NASSELLA CERNUA
3 LBS/AC HORDEUM DEPRESSUM
5 LBS/AC VULPIA MICROSTACHYS
2 LBS/AC MUHLENBERGIA MIRCOSPERMA

Parking Lot Shading
Required: 19,116 sf (50% of stalls)
Provided: 24,415 sf (63%)

Estimated shrub and groundcover quantities
5 Gal shrubs - 1,821 - 3-4' oc
1 Gal groundcover - 17,909 average 48" oc
Hydro-seed area - 54,250 sf

GENERAL NOTES
ALL LANDSCAPE AND IRRIGATION SHALL COMPLY WITH THE RIVERSIDE COUNTY ORDINANCE #859.3

ALL LANDSCAPE PLANTERS ADJACENT TO PARKING STALLS SHALL HAVE A 12" WIDE CONC. STEPOUT.

ALL TREES SHALL BE PLANTED WITH A LINEAR ROOT BARRIER WHEN LOCATED WITH 6 FEET OF ANY HARDSCAPE.

CONSTRUCTION CONSERVATION STATEMENT
THE IRRIGATION SYSTEM WILL BE DESIGNED UTILIZING 'STATE OF THE ART' IRRIGATION EQUIPMENT SUCH AS SMART CONTROLLERS, RAIN SHUT OFF DEVICES, MASTER VALVES AND FLOW SENSORS AND WATER EFFICIENT IRRIGATION HEADS.

PLANT MATERIAL IS SEPARATED BY HYDROZONES

3" MULCH LAYER

ALL IRRIGATION SYSTEMS WILL BE DESIGNED TO COMPLY WITH THE COUNTY OF RIVERSIDE'S ORDINANCE #859

GENERAL PARKING LOT SHADING CRITERIA
ALL PARKING AREAS EXCLUDING DRIVE AISLES SHALL RECEIVE A MIN. 50% SHADING UTILIZING AN ASSORTMENT OF EVERGREEN AND DECIDUOUS TREES. (CANOPY OF TREES WITH 15 YEARS OF AGE)

NOTES:

1. ALL TREES WITHIN 6' OF HARDSCAPE SHALL BE A SHAWTOWN OR EQUAL ROOTBARRIER. BE SURE TO EXTEND 5' (MIN.) ALONG HARDSCAPE IN BOTH DIRECTIONS FROM THE CENTER OF THE TREE.
2. CONTRACTOR TO INSTALL CONCRETE MOW CURB BETWEEN PLANTERS AND TURF AREAS. SEE PLANTING DETAIL SHEET.
3. ALL PLANTER AREAS TO RECEIVE A 3" LAYER OF MEDIUM WALK ON BARK (3/4" -1/2") IN SHRUB AREAS AND 1 1/2" IN GROUNDCOVER AREAS.
4. PROJECT TO BE MAINTAINED BY OWNER.
5. PER ORDINANCE NO. 348, SECTION 18.12, 50% OF PARKING AREA SHALL BE SHADED.
6. IRRIGATION AND PLANTING TO BE IN ACCORDANCE WITH RIVERSIDE COUNTY ORDINANCE NO. 859.
7. SLOPES OVER 3' TO BE PLANTED WITH GROUNDCOVER FROM FLATS 12" OC.
8. PER ORDINANCE 457, SLOPES EXCEEDING 15 FEET IN VERTICAL HEIGHT SHALL BE PLANTED WITH DROUGHT-TOLERANT SHRUBS, SPACED AT NO MORE THAN 10 FEET ON CENTER; OR TREES, SPACED NOT TO EXCEED 20 FEET ON CENTER, OR A COMBINATION OF SUCH SHRUBS AND TREES AT EQUIVALENT SPACING, IN ADDITION TO A DROUGHT-TOLERANT GRASS OR GROUND COVER.

PREFERRED PLANT MATERIAL FOR SLOPES ARE THE FOLLOWING:

TREES	
QUERCUS AGRIFOLIA	COAST LIVE OAK
RHUS LANCEA	AFRICAN SUMAC
SHRUBS	
ELAEAGNUS PUNGENS	SILVERBERRY
LEUCOPHYLLUM FRUTISCENS	TEXAS RANGER
RHAMNUS CALIFORNICA	COFFEEBERRY
WESTRINGIA FRUTICOSA	COAST ROSEMARY
GROUNDCOVER	
ACACIA REDOLENS	ACACIA
BACCHARIS PIGEON POINT	COYOTE BUSH
LONICERA J. 'HALLIANA'	HALL'S HONEYSUCKLE

9. ALL ABOVE GROUND EQUIPMENT SHALL BE SCREENED BY PLANT MATERIAL.
10. LANDSCAPE PLAN TO CONFORM TO ORDINANCE NO. 859.3 AND COUNTY OF RIVERSIDE GUIDE TO CA FRIENDLY LANDSCAPING.
11. ALL ABOVE GROUND UTILITES TO BE SCREENED WITH PLANT MATERIAL.
12. HYDROZONES WILL BE PROPERLY DESIGNATED AND METHODS OF IRRIGATION IDENTIFIED.
13. NO OVERHEAD IRRIGATION ALLOWED WITHIN 24" OF NON-PERMEABLE SURFACES. SLOPED AREA WILL BE IRRIGATION WITH ROTARY HEADS AND PLANTING AREAS LESS THAN 8' IN WIDTH WILL BE USING SUBSURFACE DRIP IRRIGATION. DRIP IRRIGATION WILL ALSO BE UTILIZED IN PLANTING AREASUNDER THE LOW WULCOLS ZONE. PROJECT SHALL USE AT LEAST 25% POINT TO POINT DRIP METHOD.
14. SUBSURFACE OR LOW-VOLUME IRRIGATION MUST BE USED FOR IRREGULARLY SHAPED AREAS.
15. VINES TO BE PLANTED AT ALL SCREEN WALL LOCATIONS TO PROTECT FROM GRAFFITI.
16. ALL PLANTER AREAS PROTECTED BY A 6" HIGH CONCRETE CURB
17. CAR OVERHANG AREAS TO BE MULCHED. SHRUBS OR GROUNDCOVER TO BE PLANTED OUTSIDE THE OVERHANGE AREA.

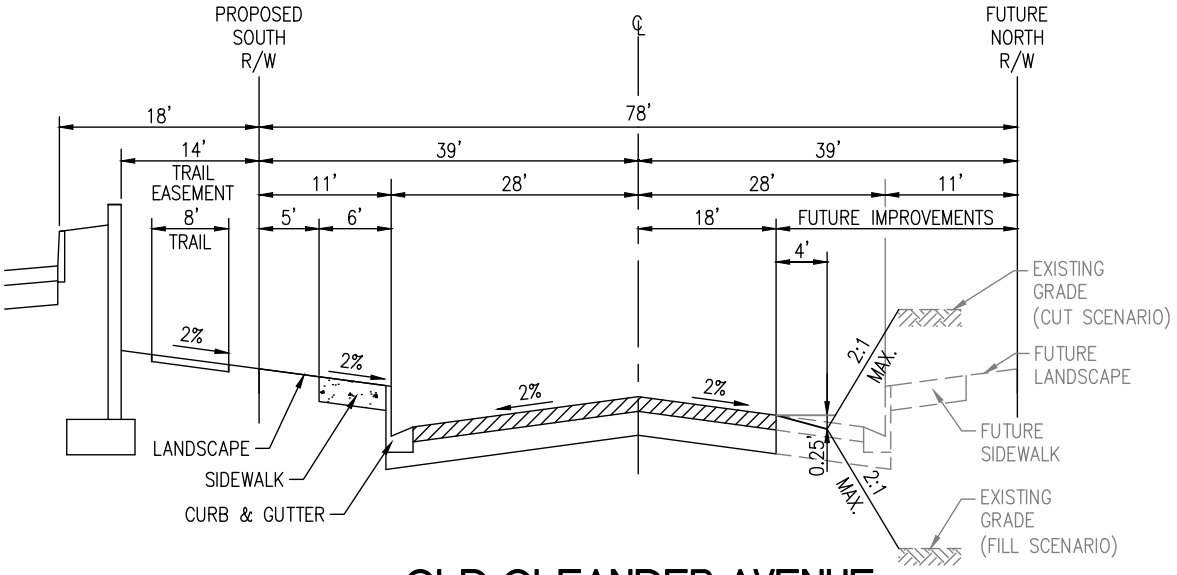
Prior to project construction, I agree to submit a complete Landscape Construction Document Package that complies with the the requirements of applicable ordinances, including but not necessarily limited to Ordinance No. 859.3; Ordinance 348, Ordinance 461; project Conditions of Approval; and in substantial conformance with the approved Landscape Concept Plan, Should the ordinances be revised, plans may be subject to change.

Proposed maintenance entity to be Hunter Landscape for the duration of the Maintenance Period ending after 60 days after sign off.

Source(s): Hunter Landscape (02-10-2017)

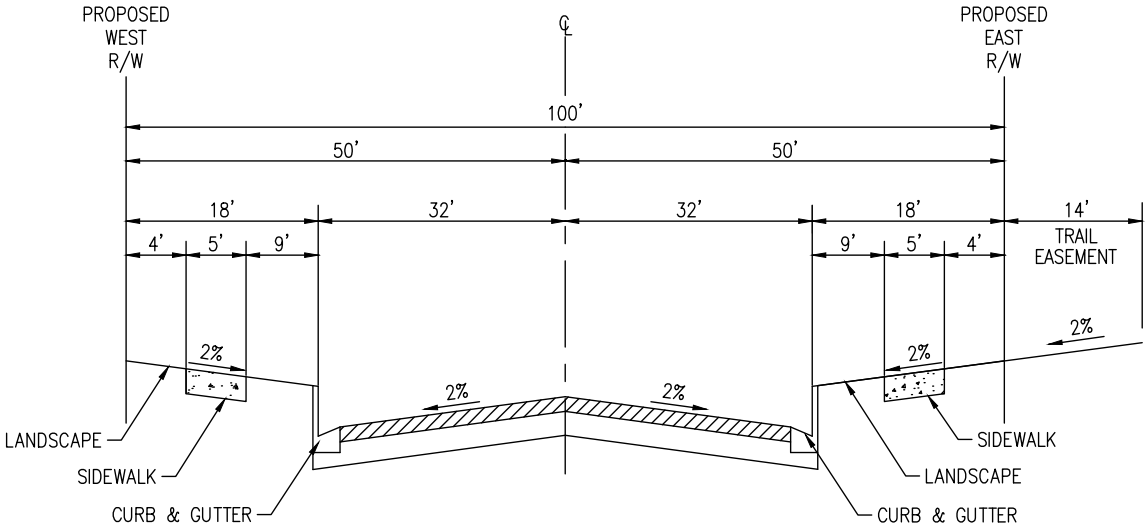
Figure 3-17

CONCEPTUAL LANDSCAPE PLAN - BUILDING E SITE



OLD OLEANDER AVENUE

NOT TO SCALE
INDUSTRIAL COLLECTOR STREET – STD. NO. 111



ELLSWORTH STREET

NOT TO SCALE
SECONDARY HIGHWAY – STD. NO. 94

Source(s): David Evans and Associates, Inc. (01-17-2017)

Figure 3-18

NOT TO SCALE

ROADWAY CROSS-SECTIONS

easement would be provided adjacent to the eastern side of the right-of-way of Ellsworth Street (on the Building D Project Site). Proposed improvements to Ellsworth Street would conform to applicable County of Riverside Transportation Department standards. Refer to Figure 3-18 for an illustration of proposed improvements to Ellsworth Street.

The Building D Project would dedicate approximately 2.63-acres of land and the Building E Project would dedicate approximately 2.0 acres of land as public right-of-way to the County of Riverside to accommodate the construction of Oleander Avenue and Ellsworth Street. The proposed street dedications would occur as part of subsequent, administrative-level street dedication actions.

B. Utility Infrastructure Improvements

❑ Water Infrastructure

Water service would be provided to the Project by the Eastern Municipal Water District (EMWD). Under existing conditions, 12-inch-diameter water lines are installed beneath the paved Oleander Avenue segment that abuts the northeastern corner of the Building D Site and beneath an unnamed, private EMWD water tank access road that abuts the southern Project site boundary. The Project would install a 12-inch-diameter water line that connects to the existing water line that abuts the southern Project site boundary; travels north beneath Ellsworth Street to Oleander Avenue; travels west beneath Oleander Avenue between Ellsworth Street and the western Building E Site boundary; and travels east beneath Oleander Avenue from Ellsworth Street to approximately 1,055 feet east of the Oleander Avenue/Ellsworth Street intersection, where it connects to the existing water line that abuts the northeast corner of the Building D Site. Buildings D and E would connect to the proposed water line beneath Oleander Avenue.

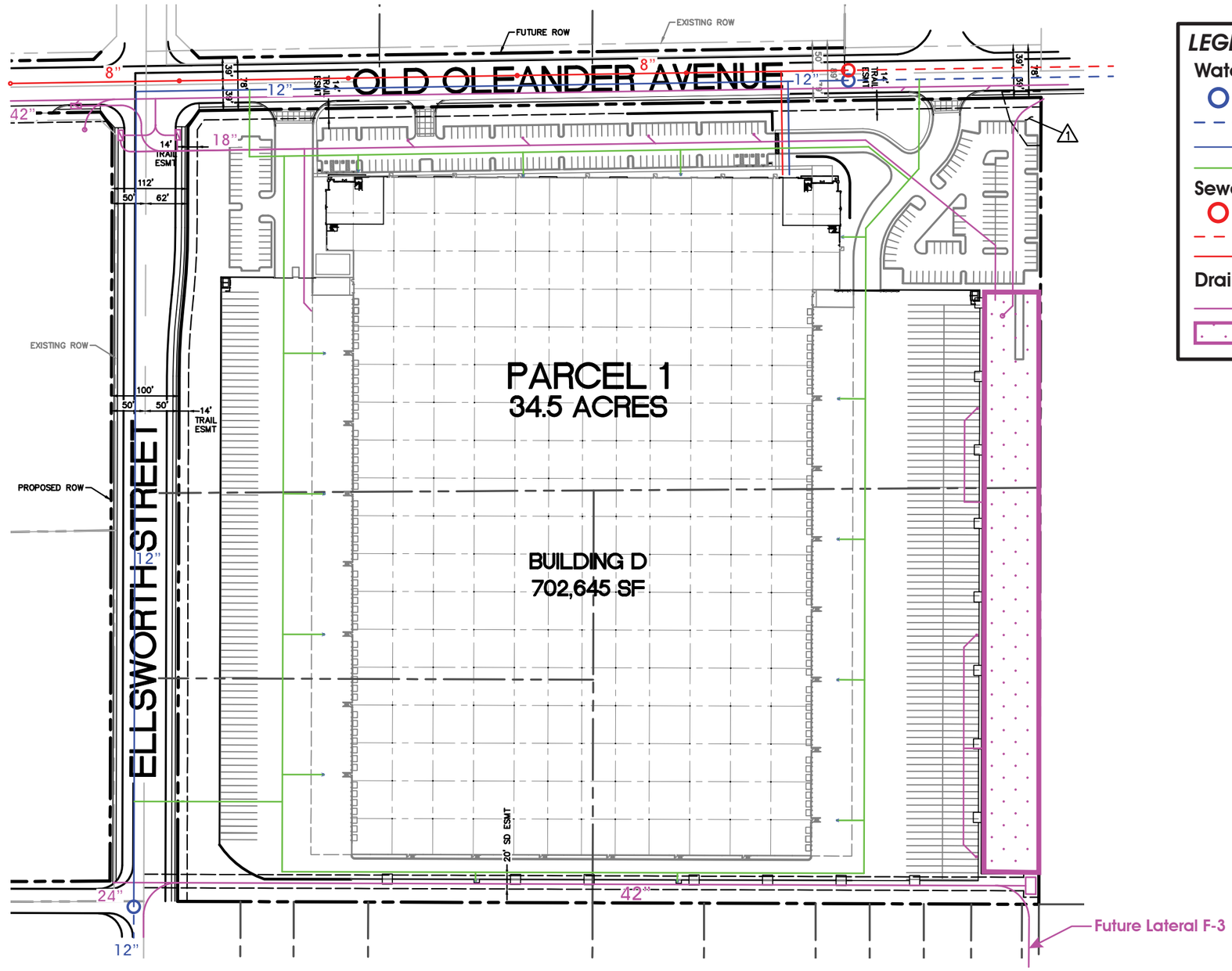
All proposed water facilities would be designed in accordance with EMWD standards and would require approval by EMWD prior to installation.

❑ Wastewater Infrastructure

Wastewater conveyance services would be provided by EMWD. Under existing conditions, an 8-inch-diameter sewer line is installed beneath the paved Oleander Avenue segment that abuts the northeastern corner of the Building D Site. As depicted on the utility plans shown in Figure 3-19, *Conceptual Utility Plan – Building D,* and Figure 3-20, *Conceptual Utility Plan – Building E*, the Project would install an 8-inch-diameter sewer line beneath Oleander Avenue, between the western Project site boundary and the existing wastewater line that abuts the northeast corner of the Project site. Buildings D and E would connect to the proposed wastewater line beneath Oleander Avenue. All proposed wastewater facilities would be designed in accordance with EMWD standards and would require approval by EMWD prior to installation.

❑ Stormwater Drainage Infrastructure

The Project site's natural drainage pattern would be replaced by a constructed storm drain system. The

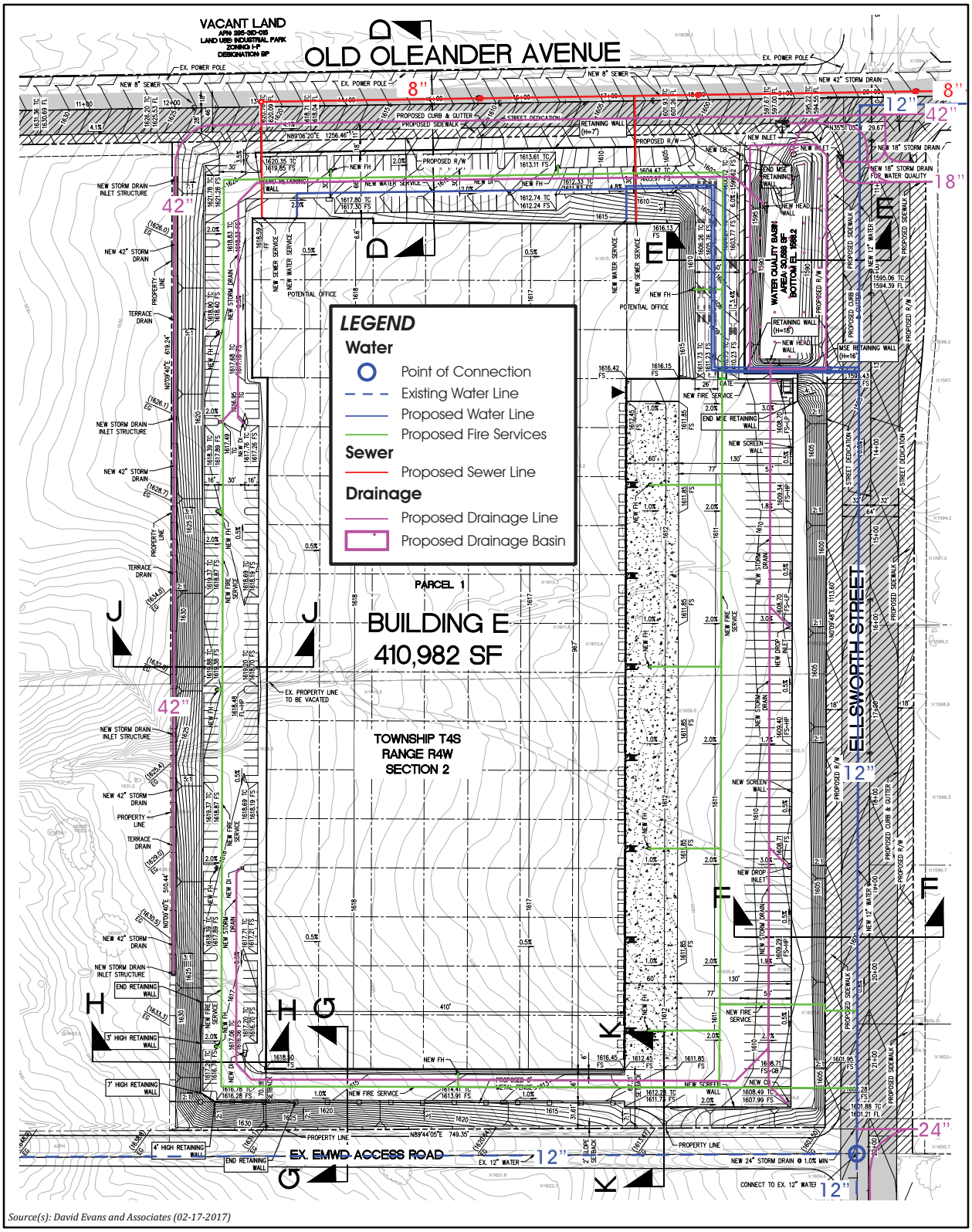


Source(s): David Evans and Associates (08-19-2016)

Figure 3-19

NOT TO SCALE

CONCEPTUAL UTILITY PLAN - BUILDING D SITE



Source(s): David Evans and Associates (02-17-2017)

Figure 3-20

NOT TO SCALE

CONCEPTUAL UTILITY PLAN - BUILDING E SITE

proposed on-site storm drain system is proposed to consist of a system of trench drains, drop inlets, underground storm drain pipes and basins, and bioretention/detention basins that would collect, treat, and temporarily store stormwater runoff (as needed) before discharging treated flows from the property. First flush stormwater runoff flows (i.e., typically the first ¾ inch of initial surface runoff after a rainstorm, which contains the highest proportion of waterborne pollution) would be conveyed to the bioretention/detention basins located on the Building D Site and the Building E Site. Stormwater runoff captured after the first flush would be discharged off-site via proposed connections to the Perris Valley MDP system. (DEA, 2017a, n.p.)

In conjunction with development of the Building D Site, Perris Valley MDP Lateral F-4 would be extended in Oleander Road from its existing terminus near the northeast corner of the Building D Site to Ellsworth Street. Perris Valley MDP Laterals F-3 and F-3.1 are proposed to be combined as a single storm drain line (Lateral F-3) primarily installed along the southern boundary of the Building D Site, with an approximately 300-foot segment located beneath Ellsworth Street. Lateral F-3 would outlet at an energy dissipator with weir device located at the southeast corner of the Building D Site. (DEA, 2017a)
Similarly, in conjunction with development of the Building E Site, Perris Valley MDP Lateral F-4 would be extended in Oleander Road from its existing terminus near the northeast corner of the Building D Site to the northwest corner of the Building E Site. Also, as would occur for development of the Building D Site, Perris Valley MPD Laterals F-3 and F-3.1 would be combined as a single storm drain line (Lateral F-3) installed along the southern boundary of the Building D Site, which would outlet at an energy dissipator with weir device located at the southeast corner of the Building D Site.

At full proposed buildout of both the Building D Site and the Building E Site, during peak storm events, the Project would discharge approximately 29 cubic feet per second (cfs) of stormwater runoff to Lateral F-4 and approximately 26 cfs of stormwater runoff to Lateral F-3. When peak storm runoff flows from off-site tributary areas are added to the Project's flows, Lateral F-4 would have a total flow of 130 cfs and Lateral F-3 would have a total flow of 141, both of which are below their available capacities of 138 cfs and 206 cfs, respectively. (DEA, 2017a, n.p.) As such, the Project would be consistent with the Perris Valley MDP. All of the Project's proposed stormwater drainage facilities would be designed in accordance with RCFCWCD standards and would require approval by RCFCWCD prior to installation. Also, pursuant to the County's MS4 general permits, the peak storm water runoff discharge would not exceed the estimated pre-development rate.

3.5 OPERATIONAL CHARACTERISTICS

At the time this EIR was prepared, the future user(s) of proposed Buildings D and E were unknown; however, the Project Applicant expects the buildings to be occupied by high-cube warehouse users. The proposed business park warehouse buildings are not designed to accommodate an occupant that requires cold storage (i.e., refrigeration); therefore, the analysis in this EIR assumes that the proposed buildings would not house a tenant that uses cold storage.

This EIR assumes that Buildings D and E would be operational 24 hours per day, seven (7) days per week, with exterior areas safety-lit at night. The proposed buildings would be designed such that business operations would be conducted primarily within the enclosed building, with the exception of traffic movement, parking, and the loading and unloading of tractor trailers at the loading bays. Based on the Project's traffic study supplement (*Technical Appendix J1*), during long-term operational conditions, Building D is calculated to generate 1,853 passenger car equivalent (PCE) trips, while Building E is calculated to generate 1,038 PCE trips. In total, the Project would generate up to 3,319 PCE vehicle trips per day.

Because users of the Project's buildings are not yet known, the number of jobs that the Project would generate cannot be precisely determined; therefore, for purposes of analysis, employment estimates have been calculated using data and average employment density factors utilized in the County of Riverside General Plan. The General Plan estimated that light industrial business would employ one (1) worker for every 1,030 s.f. of building area. Based on this employment generation rate, the Project is expected to create approximately 1,081 new, recurring jobs (1,113,627 s.f. ÷ 1,030). (Riverside County, 2016 Appendix E, Table ES-5)

According to a Water Supply Assessment prepared for the Project by EMWD (*Technical Appendix K*), the Project would result in a demand for approximately 38,890 gallons per day (gpd) of potable water, which translates into an annual demand of approximately 44 acre-feet per year (AFY). The Project also would generate a total of approximately 49,130 gallons of wastewater per day. Based on calculations utilized in the Project's Energy Analysis (*Technical Appendix L*), the proposed Project would demand approximately 4,381,622 kilowatt hours of electricity per year (kWh/yr) and 2,142,900 British thermal unit of natural gas per year (kBTU/yr). These calculations are based on a larger sized Building E than is currently proposed, and are therefore higher than the water, wastewater, and energy demands that would actually occur.

Refer to EIR Subsections 4.7, *Greenhouse Gas Emissions*, and 5.4, *Energy Conservation*, for more information about the Project's proposed energy efficiencies. Although the actual efficiency measures that are implemented at building construction will be determined at the building permit stage of Project design, the Project Applicant expects to include skylights and windows to allow light penetration to reduce indoor artificial lighting; enhanced window and duct insulation; improved or high efficiency HVAC units, water heaters, and appliances; high efficiency lights; and features to reduce water use such as low water use landscaping and water efficient toilets and faucets. Also, the roofs of both buildings are proposed to be designed and constructed to accommodate a 1 KW photovoltaic (PV) solar array taking into consideration limitations imposed by other rooftop equipment, roof warranties, building and fire code requirements, and other physical or legal limitations. Also, the buildings will be constructed with the necessary electrical systems and other infrastructure to accommodate PV arrays in the future. Further, the proposed buildings would be required by law to comply with enhanced building/utilities energy efficiencies mandated under California building codes (e.g., Title 24, the California Green Building Code). Vehicles accessing the Project site would be required by law to comply with increasingly stringent state and federal regulatory actions addressing vehicle fuel economies and vehicle emissions standards.

3.6 CONSTRUCTION CHARACTERISTICS

Based on information supplied by the Project Applicant regarding the Project's expected construction schedule, this EIR assumes that the proposed Project would be constructed in one phase over the course of approximately 23 months. Commencement of construction is expected to occur in 2018. At the time the NOP was released for this EIR (August 2015), construction was anticipated to commence in 2016; thus, the technical analysis presented in this EIR is based on a construction period spanning 2016-2017. Although actual construction of Building D and Building E would commence in 2018, the technical analysis presented in this EIR that assumes an earlier construction period is adequate under CEQA because it overstates construction-related impacts. This is because as time passes, construction equipment operators phase out the use of older equipment and phase in newer pieces of equipment that emit lower levels of air pollutants and noise. Thus, there was no need to update the technical analyses, as any updates for a later construction period would have shown nominally lesser levels of impact as a result of the later construction period and the phasing out of older construction equipment. Also, should Building D and Building E be constructed in two phases instead of one phase, the analysis in this EIR also represents worst-case analyses because simultaneous construction would result in a greater daily impact than would occur if the buildings were constructed one at a time.

Construction equipment is expected to operate on the Project site eight hours per day, five days per week during the construction period. Construction workers would travel to the Project site by passenger vehicle and materials deliveries would occur by medium- and heavy-duty trucks. The types and numbers of off-road heavy equipment expected to be used on the Project site during construction activities are listed in Table 3-1, *Construction Equipment Assumptions*.

When construction activities commence, site preparation and the demolition/removal of the existing improvements on the Project site would occur first. Then the property would be mass-graded and underground infrastructure and retaining walls would be installed. Next, fine grading would occur, surface materials would be poured, and the proposed buildings would be erected, connected to the underground utility system, and painted. Lastly, landscaping, fencing, screen walls, lighting, signage, and other site improvements would be installed.

As part of proposed grading activities, blasting would be necessary in hard rock areas in the southern portion of the Building D Site boundaries. Based on the excavation plans prepared on June 16, 2015, by the Henry-Ann Company, rock blasting within the Building D Site is expected to include the drilling of up to 5,253 holes in the largest area, in which small charges would be placed to fragment the rocks into smaller, crushable pieces. Approximately 112,090 cubic yards (c.y.) of rock is expected to be produced during proposed blasting activities, which would be crushed and used on the Project site as construction base. An electric rock crusher powered by a 300-horsepower diesel generator is proposed to further break down the fragmented rocks. The Project Applicant calculates that approximately 2,759 tons of rock would be processed on the Project site per day during the blasting and rock crushing phase of construction (approximately 65 working days). (Urban Crossroads, Inc, 2016a, pp. 31-32)

3.7 STANDARD REQUIREMENTS AND CONDITIONS OF APPROVAL

The proposed General Plan Amendment Nos. 1151 and 1152, Change of Zone Nos. 7872 and 7873, Tentative Parcel Map Nos. 36950 and 36962, and Plot Plan Nos. 25837 and 25838, and their technical aspects have been reviewed in detail by numerous County of Riverside departments and divisions.

Table 3-1 Construction Equipment Assumptions

Activity	Equipment	Number	Hours Per Day
Demolition	Concrete/Industrial Saws	1	8
	Excavators	3	8
	Rubber Tired Dozers	2	8
Grading (Including Blasting)	Excavators	1	8
	Generator Sets	1	8
	Graders	1	8
	Water Trucks	2	8
	Rubber Tired Dozers	5	8
	Scrapers	8	8
	Tractors/Loaders/Backhoes	2	8
Underground Utilities	Excavators	3	8
	Off-Highway Trucks	2	8
	Rubber Tired Dozers	1	8
	Rubber Tired Loaders	1	8
Building Construction	Cranes	1	8
	Forklifts	2	8
	Generator Sets	3	8
	Other Construction Equipment	1	8
	Tractors/Loaders/Backhoes	3	8
	Welders	6	8
Landscaping	Tractors/Loaders/Backhoes	1	8
Paving & Site Finishes	Pavers	2	8
	Paving Equipment	2	8
	Rollers	2	8
Architectural Coatings	Air Compressors	2	8
	Aerial Lifts	4	8

Source: (Urban Crossroads, Inc, 2016a, Table 3-3)

These departments and divisions are responsible for reviewing land development applications for compliance with applicable County codes, ordinances, policies, plans, and regulations. These departments and divisions also were responsible for exercising their independent judgment in reviewing this EIR and its Technical Appendices for technical accuracy and compliance with CEQA. The County of Riverside departments and divisions responsible for technical review include:

- Planning Department, Planning Division
- Planning Department, Cultural Resources Division
- Planning Department, Environmental Programs Division
- Planning Department, Geology Division
- Planning Department, Landscape Review
- Building & Safety Department
- Environmental Health Department
- Fire Department
- Parks and Recreation Department
- Transportation Department

Review of the proposed Project by the Riverside County departments and divisions listed above, in addition to the Riverside County Flood Control and Water Conservation District (RCFCWCD), will result in the production of a comprehensive set of Conditions of Approval for the Building D Project and the Building E Project that will be available for public review prior to consideration of the proposed Projects by the Riverside County Board of Supervisors. These conditions will be considered by the Board of Supervisors in conjunction with their consideration of proposed General Plan Amendment Nos. 1151 and 1152, Change of Zone Nos. 7872 and 7873, Tentative Parcel Map Nos. 36950 and 36962, and Plot Plan Nos. 25837 and 25838. If the Building D Project and the Building E Project are approved by the Board of Supervisors, the Projects will be required to comply with all imposed Conditions of Approval.

Conditions of Approval and other applicable regulations, codes, policies, and requirements to which the Project is required to comply and that result in the reduction or avoidance of an environmental impact are specified in each subsection of EIR Section 4.0, *Environmental Analysis*.

3.8 SUMMARY OF ACTIONS REQUESTED OF RIVERSIDE COUNTY

The County of Riverside has primary approval responsibility for the proposed Project. As such, the County serves as the Lead Agency for this EIR pursuant to CEQA Guidelines § 15050. (The role of the Lead Agency was previously described in detail in Subsection 1.4 of this EIR). The Riverside County Planning Commission will consider the Project's requested discretionary permit applications and approvals and make advisory recommendations to the Riverside County Board of Supervisors. The Board of Supervisors will have final authority over approval, approval with changes, or denial of the requested actions that within the County's jurisdiction. The County will use its independent judgment when considering the information contained in this EIR and this EIR's Administrative Record during its decision-making processes. Upon approval of the Building D Project and the Building E Project and certification of this EIR, the County would conduct administrative reviews and approve ministerial permits and approvals to implement Project requirements and conditions of approval. A list of the primary actions under County jurisdiction is provided in Table 3-2, *Matrix of Project Approvals/Permits*.

3.9 RELATED ENVIRONMENTAL REVIEW AND CONSULTATION REQUIREMENTS

In addition to the Project-related actions under consideration by the County of Riverside, additional discretionary and/or administrative actions would be necessary to implement the proposed Project. Table 3-2 lists the agencies that are expected to use this EIR and provides a summary of the related actions associated with the Project. This EIR covers all federal, state, local government and quasi-government approvals which may be needed to construct or implement the Project, whether or not they are explicitly listed in Table 3-2 or elsewhere in this EIR (CEQA Guidelines § 15124(d)).

Table 3-2 Matrix of Project Approvals/Permits

PUBLIC AGENCY	APPROVALS AND DECISIONS
County of Riverside	
County of Riverside Discretionary Approvals (Proposed Project)	
Riverside County Planning Commission	• Recommend approval, conditional approval, or denial of General Plan Amendment Nos. 1151and 1152, Change of Zone Nos. 7872 and 7873, Tentative Parcel Map Nos. 36950 and 36962, and Plot Plan Nos. 25837 and 25838; and • Recommend that the Board of Supervisors reject or certify this EIR along with appropriate CEQA Findings.
Riverside County Board of Supervisors	• Approve, conditionally approve, or deny General Plan Amendment Nos. 1151 and 1152, Change of Zone Nos. 7872 and 7873, Tentative Parcel Map Nos. 36950 and 36962, and Plot Plan Nos. 25837 and 25838; and • Reject or certify this EIR along with appropriate CEQA Findings.
Subsequent County of Riverside Approvals	
Riverside County Subsequent Implementing Approvals	• Approve Final Maps, parcel mergers or parcel consolidations, as may be necessary. • Approve Conditional or Temporary Use Permits, if required. • Issue Grading Permits. • Issue Building Permits. • Approve Road Improvement Plans. • Issue Encroachment Permits. • Accept public right-of-way dedications. • Approve street vacations.
Other Agencies – Subsequent Approvals and Permits	
Riverside County Flood Control and Water Conservation District	• Approvals for construction of drainage infrastructure.
Eastern Municipal Water District	• Approvals for construction of water and sewer infrastructure.
Santa Ana Regional Water Quality Control Board	• Issuance of a Construction Activity General Construction Permit. • Issuance of a National Pollutant Discharge Elimination System (NPDES) Permit.
California Department of Fish & Wildlife	• Issuance of a 1602 Permit.

4.0 ENVIRONMENTAL ANALYSIS

4.0.1 SUMMARY OF EIR SCOPE

In accordance with CEQA Guidelines §§ 15126-15126.4, this EIR Section 4.0, *Environmental Analysis*, provides analyses of potential direct, indirect, and cumulatively considerable impacts that could occur from planning, constructing, and operating the proposed Project.

In compliance with the procedural requirements of CEQA, Riverside County completed an Initial Study to determine the scope of environmental analysis for this EIR. Public comment on the scope consisted of written comments received by the County of Riverside in response to the NOP issued for this EIR and oral comments provided by members of the public at the EIR scoping meeting held on September 14, 2015, at the Riverside County Administrative Building. Taking all known information and public comments into consideration, 17 primary environmental subject areas are evaluated in this Section 4.0, as listed below. Each subsection evaluates several specific subject matters related to the general topic of the subsection. The title of each subsection is not limiting; therefore, refer to each subsection for a full account of the subject matters addressed therein.

4.1	Aesthetics	4.10	Land Use/Planning
4.2	Agriculture and Forest Resources	4.11	Noise
4.3	Air Quality	4.12	Population/Housing
4.4	Biological Resources	4.13	Public Services
4.5	Cultural Resources	4.14	Recreation
4.6	Geology/Soils	4.15	Transportation/Traffic
4.7	Greenhouse Gas Emissions	4.16	Utilities/Service Systems
4.8	Hazards/Hazardous Materials	4.17	Paleontological Resources
4.9	Hydrology/Water Quality		

Public Resources Code (PRC) § 21100(b)(3) and CEQA Guidelines § 15126.4 require EIRs to describe, where relevant, the wasteful, inefficient, and unnecessary consumption of energy caused by a project. Accordingly, in addition to the subject matters listed above, this EIR addresses the topic of energy conservation in Section 5.0, *Other CEQA Considerations* pursuant to Appendix F of the State CEQA Guidelines.

One environmental subject was determined by the County to have no potential to be significantly impacted by the Project, as concluded by the Project's Initial Study (included in *Technical Appendix A* to this EIR) and after consideration of all comments received by the County on the scope of this EIR and information documented in the County's Administrative Record for this Project. This one subject, Mineral Resources, is discussed briefly in Section 5.0.

4.0.2 SCOPE OF CUMULATIVE EFFECTS ANALYSIS

CEQA requires that an EIR contain an assessment of the cumulative impacts that may be associated with a proposed project. As noted in CEQA Guidelines § 15130(a), "an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable." "A cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects creating related impacts" (CEQA Guidelines § 15130(a)(1)). As defined in CEQA Guidelines § 15355:

> *'Cumulative Impacts' refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.*
>
> *(a) The individual effects may be changes resulting from a single project or a number of separate projects.*
>
> *(b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.*

CEQA Guidelines § 15130(b) describes two acceptable methods for identifying a study area for purposes of conducting a cumulative impact analysis. These two approaches include: "1) a list of past, present, and probable future projects producing related or cumulative impacts, including if necessary, those projects outside the control of the agency ['the list of projects approach'], or 2) a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact ['the summary of projections approach']."

The summary of projections approach is used in this EIR, except for the evaluation of cumulative traffic and vehicular-related air quality, greenhouse gas, and noise impacts. The analysis of cumulative traffic impacts uses a combined approach, using the summary of projections approach with the manual addition of past, present, and reasonably foreseeable projects that were not accounted for in the projections, where appropriate. This approach was determined to be appropriate by the County of Riverside because long-range planning documents contain a sufficient amount of information to enable an analysis of cumulative effect for all subject areas, with expectation of traffic and vehicular-related air quality, greenhouse gas, and noise effects, which require a greater level of detailed study. The cumulative analyses of traffic and vehicular-related air quality, and noise impacts, which rely on data from the traffic study, inherently utilize the combined approach.

Using the summary of projections approach, the cumulative study area includes the City of Moreno Valley, the City of Perris, and the City of Riverside, as well as the Harvest Valley/Winchester Area

Plan (HVWAP), Lakeview/Nuevo Area Plan (LNAP), and the Mead Valley Area Plan (MVAP), which are part of the Riverside County General Plan. These three cities and the three Riverside County Area Plans encompass portions of western Riverside County that have similar environmental characteristics as the Project area. The selected study area encompasses the Perris Valley, which is largely bounded by prominent topographic landforms, such as Reche Canyon to the north, the Badlands to the east, and the Lakeview Mountains to the southeast. This study area exhibits similar characteristics in terms of climate, geology, and hydrology, and therefore is also likely to have similar biological characteristics and cultural resources. This study area also encompasses the service areas of the Project's primary public service and utility providers. Areas outside of this study area either exhibit topographic, climatological, or other environmental circumstances that are different from those of the Project area, or are simply too far from the proposed Project site to produce environmental effects that could be cumulatively considerable.

Environmental impacts associated with buildout of the Riverside County General Plan were evaluated in a Program EIR certified by Riverside County in 2003 (SCH No. 2002051143). The Riverside County General Plan EIR is herein incorporated by reference and is available for review at the County of Riverside Transportation and Land Management Agency Planning Department, 4080 Lemon Street, 12th Floor, Riverside, California 92502. In addition to the Riverside County General Plan EIR that was certified in 2003, at the time this EIR was prepared, the County of Riverside was in the process of updating its General Plan, which has since been approved and became effective on December 15, 2015. The General Plan Update and the General Plan Update EIR No. 521 (SCH No. 200904105) are also incorporated herein by reference and are available for review at the street address listed above, as well as on the County of Riverside's website noted in Section 7.0, *References*. The Riverside County General Plan Update EIR No. 521 also was used as a reference by this EIR in the evaluation of environmental impacts associated with the buildout of the County of Riverside General Plan Update. The environmental impacts associated with the buildout of the City of Perris General Plan were evaluated in a Program EIR that was certified by the Perris City Council on April 26, 2005 (SCH No. 2004031135). The City of Perris General Plan EIR is also incorporated by reference and is available for review at the City of Perris Department of Community Development, 135 North "D" Street, Perris, California 92570. The environmental impacts associated with buildout of the City of Moreno Valley General Plan were evaluated in the Program EIR that was certified by the Moreno Valley City Council on July 11, 2006 (SCH No. 2000091075). The Moreno Valley General Plan EIR is incorporated by reference and is available for review at the City of Moreno Valley Economic Development Department, 14177 Frederick Street, Moreno Valley, California 92552. Finally, the environmental impacts associated with the buildout of the City of Riverside General Plan was evaluated in a Program-level EIR that was certified by the Riverside City Council in November 2007 (SCH No. 2004021108). The City of Riverside General Plan EIR is also incorporated by reference and is available for review at the City of Riverside Community Development Department, Planning Division, 3900 Main Street, Riverside, California 92522.

The study area for cumulative traffic impacts (as well as vehicular-related air quality, greenhouse gas, and noise impacts) includes approved and pending development projects in proximity to the Project site, as of the time the NOP for this EIR was released for public review, that have the potential to

contribute a measurable amount of traffic to the same transportation facilities as the Project, as well as several large, traffic-intensive projects farther from the Project site that have the potential to affect regional transportation facilities As such, the cumulative impact analysis of traffic and vehicular-related air quality, greenhouse gas, and noise impacts analyzes 103 other past, present, and reasonably foreseeable projects within this study area. This methodology presents a more reasonable approach to cumulative traffic analysis than the General Plan projection approach by recognizing development projects that actually have the potential to contribute traffic to the same intersections, roadway segments, and/or state highway system facilities as the proposed Project and have the potential to be made fully operational during a similar timeframe as the proposed Project. Specific development projects included in the cumulative traffic impact analysis shown in Figure 4.0-1 *Cumulative Development Location Map,* and are listed in Table 4.0-1, *Cumulative Development Land Use Summary*.

4.0.3 IDENTIFICATION OF IMPACTS

Subsections 4.1 through 4.17 of this EIR evaluate the 17 environmental subjects warranting detailed analysis, as determined by this EIR's Initial Study and in consideration of public comment on this EIR's NOP. The format of discussion is standardized as much as possible in each section for ease of review. The environmental setting is discussed first, followed by a discussion of the Project's potential environmental impacts based on specified thresholds of significance used as criteria to determine whether potential environmental effects are significant.

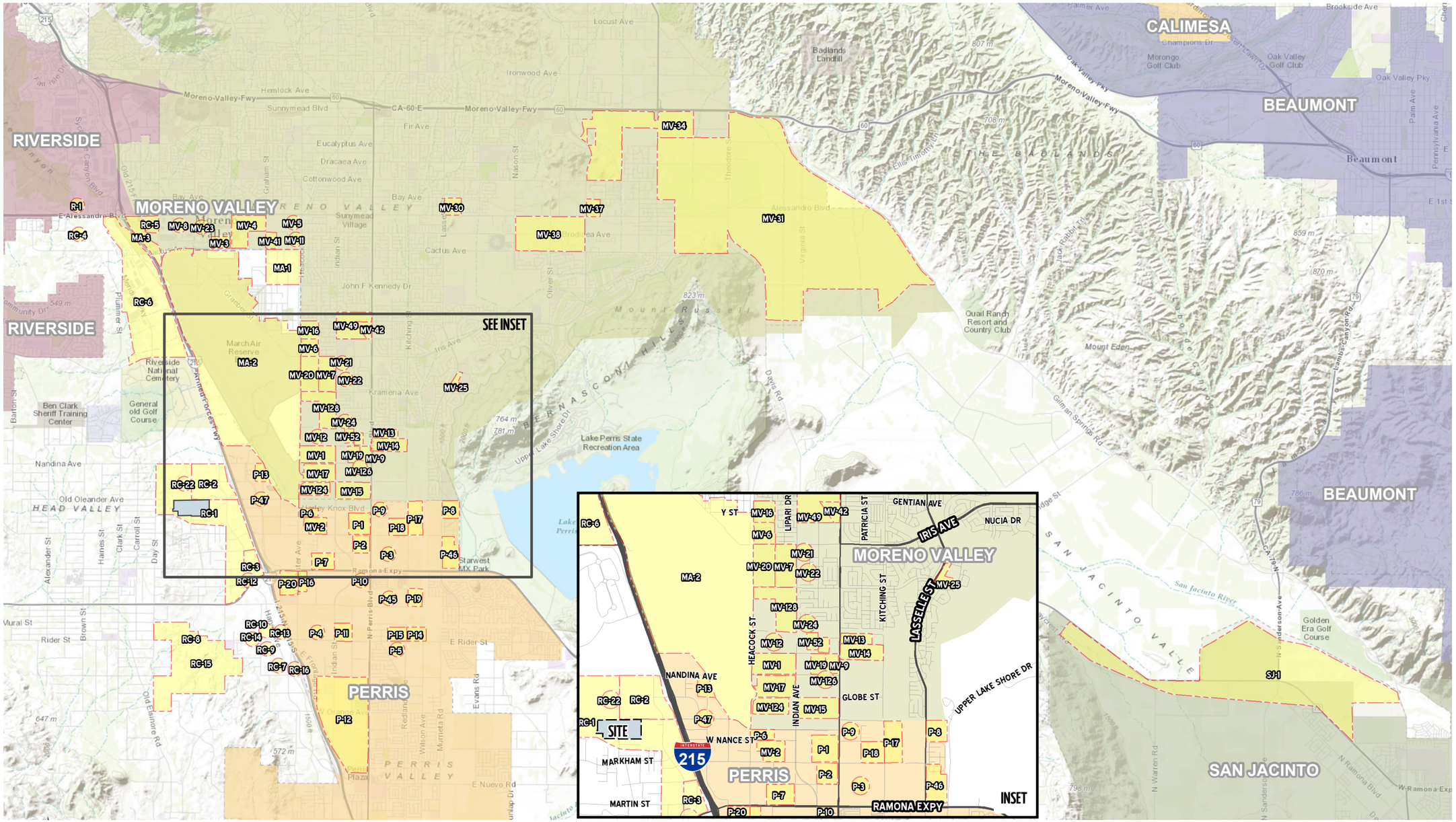
The thresholds of significance used in this EIR are based on the thresholds presented in the Project's Initial Study Checklist (included in *Technical Appendix A* to this EIR). As the CEQA Lead Agency, Riverside County uses an Initial Study format for projects within its jurisdiction called the "Riverside County Environmental Assessment/Initial Study Form." This document contains thresholds of significance applicable to Riverside County that are based on the sample form found in CEQA Guidelines Appendix G. The thresholds are intended to assist the reader of this EIR in understanding how and why this EIR reaches a conclusion that an impact would or would not occur, is significant, or is less than significant.

Serving as the CEQA Lead Agency for this EIR, the County of Riverside is responsible for determining whether an adverse environmental effect identified in this EIR should be classified as significant or less than significant. The standards of significance used in this EIR are based on the independent judgment of the County of Riverside, taking into consideration CEQA Guidelines Appendix G, the County of Riverside's Code of Ordinances and adopted County policies, the judgment of the technical experts that prepared this EIR's Technical Appendices, performance standards adopted, implemented, and monitored by regulatory agencies, significance standards recommended by regulatory agencies, and the standards in CEQA that trigger the preparation of an EIR.

As required by CEQA Guidelines § 15126.2(a), impacts are identified in this EIR as direct, indirect, cumulative, short-term, long-term, on-site, and/or off-site impacts of the proposed Project and/or Project-related components. A summarized "impact statement" is provided in each subsection

following the analysis. Each subsection also includes a discussion or listing of the applicable regulatory criteria (laws, policies, regulations) that the Project and its implementing actions are required to comply with (if any). If impacts are identified as significant after mandatory compliance with regulatory criteria, feasible mitigation measures are presented if feasible measures are available that would either avoid the impact or reduce the magnitude of the impact.

For any impact identified in this EIR as significant and unavoidable, the County of Riverside would be required to adopt a statement of overriding considerations pursuant to CEQA Guidelines § 15093 in order to approve the Project despite its significant impact(s) to the environment. The statement of overriding considerations would list the specific economic, legal, social, technological, and other benefits of the Project, supported by substantial evidence in the Project's administrative record, that outweigh the unavoidable impacts.



Source(s): Urban Crossroads (06-08-2015)

Figure 4.0-1

NOT TO SCALE

CUMULATIVE DEVELOPMENT LOCATION MAP

Table 4.0-1 Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
COUNTY OF RIVERSIDE				
RC-1	SP 341; PP 21552 (Majestic Freeway Business Center)	High-Cube Warehouse	6100.715	TSF
RC-2	PP 20699 (Oleander Business Park)	Warehousing	1206.710	TSF
RC-3	Ramona Metrolink Station	Light Rail Transit Station	300	SP
RC-4	PP 22925 (Amstar/Kaliber Development)	Office (258.102 TSF)	258.102	TSF
		Warehousing	409.312	TSF
		General Light Industrial	42.222	TSF
		Retail	10.000	TSF
RC-5	Alessandro Metrolink Station	Light Rail Transit Station	300	SP
RC-6	Meridian Business Park North	Industrial Park	5985.000	TSF
RC-7	PP 18908	General Light Industrial	133.000	TSF
RC-8	Tract 33869	SFDR	39.000	DU
RC-9	PP 16976	General Light Industrial	85.000	TSF
RC-10	PP 21144	Industrial Park	190.802	TSF
RC-12	CUP03315	Gas Station w/ Market	17	VFP
		Fast Food w/o Drive Thru	5.600	TSF
		High-Turnover Restaurant	6.500	TSF
RC-13	PP23342	Industrial Park	180.600	TSF
RC-14	TR30592	SFDR	131	DU
RC-15	Rider Street Quarry	Quarry	2500.0	AC
RC-16	PP 20711	Manufacturing	20.0	AC
	Yocum Baldwin	Warehousing	46.8	AC
RC-22	Blanding Assemblage	High-Cube Warehouse	707.880	TSF
CITY OF MORENO VALLEY				
MV-1	PA 06-0152 & PA 06-0153 (First Park Nandina I & II)	High-Cube Warehouse	1182.918	TSF
MV-2	Integra Pacific Industrial Facility	High-Cube Warehouse	880.000	TSF
MV-3	PA 08-0072 (Overton Moore Properties)	High-Cube Warehouse	520.000	TSF
MV-4	Harbor Freight Expansion	High-Cube Warehouse	1279.910	TSF
MV-5	PA 04-0063 (Centerpointe Buildings 8 and 9)	General Light Industrial	361.384	TSF
MV-6	PA 07-0035; PA 07-0039 (Moreno Valley Industrial Park)	General Light Industrial	204.657	TSF
		High-Cube Warehouse	409.920	TSF
MV-7	PA 07-0079 (Indian Business Park)	High-Cube Warehouse	1560.046	TSF
MV-8	PA 08-0047-0052 (Komar Cactus Plaza)[3]	Hotel	110	RMS
		Fast Food w/Drive Thru	8.000	TSF
		Commercial	42.400	TSF
MV-9	First Inland Logistics Center	High-Cube Warehouse	400.130	TSF
MV-11	PA 08-0093 (Centerpointe Business Park II)	General Light Industrial	99.988	TSF
MV-12	PA 06-0021; PA 06-0022; PA 06-0048; PA 06-0049 (Komar Investments)	Warehousing	2057.400	TSF
MV-13	PA 06-0017 (Ivan Devries)	Industrial Park	569.200	TSF
MV-14	Modular Logistics (Dorado Property)	High-Cube Warehouse	1109.378	TSF
MV-15	PA 09-0004 (Vogel)	High-Cube Warehouse	1616.133	TSF
MV-16	TM 34748	SFDR	135	DU
MV-17	First Nandina Logistics Center	High-Cube Warehouse	1450.000	TSF
MV-19	First Park Nandina III	High-Cube Warehouse	691.960	TSF
	Moreno Valley Commerce Park	High-Cube Warehouse	354.321	TSF
MV-20	March Business Center	General Light Industrial	16.732	TSF
		Warehousing	87.429	TSF
		High-Cube Warehouse	1380.246	TSF
MV-21	TM 33810	SFDR	16	DU
MV-22	TM 34151	SFDR	37	DU
MV-23	373K Industrial Facility	High-Cube Warehouse	373.030	TSF
MV-24	TM 32716	SFDR	57	DU
MV-25	TM 32917	Condo/Townhomes	227	DU

Table 4.0-1 Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
MV-30	PA 08-0079-0081 (Winco Foods)	Discount Supermarket	95.440	TSF
		Specialty Retail	14.800	TSF
MV-31	Moreno Beach Marketplace (Lowe's)	Commercial Retail	175.000	TSF
	Auto Mall Specific Plan (Planning Area C)	Commercial Retail	304.500	TSF
	Westridge	High-Cube Warehouse	937.260	TSF
	ProLogis	High-Cube Warehouse	1916.190	TSF
		Warehousing	328.448	TSF
	World Logistics Center	High-Cube Warehouse	41400.000	TSF
		Warehousing	200.000	TSF
		Gas Station w/ Market	12	VFP
		Existing SFDR	7	DU
MV-34	a Westridge Commerce Center	High-Cube Warehouse	937.260	TSF
	b P06-158 (Gascon)	Commercial Retail	116.360	TSF
	c Auto Mall Specific Plan (PAC)	Commercial Retail	304.500	TSF
	d ProLogis	Warehousing	367.000	TSF
		High-Cube Warehouse	1901.000	TSF
	e TR 35823 (Stowe Passco)	SFDR	261	DU
		Apartments	216	DU
MV-37	Lowe's (Moreno Beach Marketplace)	Home Improvement Store	175.000	TSF
MV-38	a Convenience Store/ Fueling Station	Gas Station w/ Market	30.750	TSF
	b Senior Assisted Living	Assisted Living Units	139	DU
	c TR 31590 (Winchester Associates)	SFDR	96	DU
	d TR 32548 (Gabel, Cook & Associates)	SFDR	107	DU
	e 26th Corp. & Granite Capitol	SFDR	32	DU
	f TR 32218 (Whitney)	SFDR	63	DU
	g Moreno Marketplace	Commercial Retail	93.788	TSF
	h Medical Plaza	Medical Offices	311.633	TSF
MV-40	Moreno Valley Industrial Center (Industrial Area SP)	General Light Industrial	354.810	TSF
MV-41	Centerpointe Business Park	General Light Industrial	356.000	TSF
MV-42	Moreno Valley Shopping Center	Free Standing Discount Store	189.520	TSF
		Gas Station w/ Market / Car Wash	16	VFP
MV-49	TR 22180 / Young Homes	Residential	140	DU
MV-52	San Michele Industrial Center (Industrial Area SP)	General Light Industrial	865.960	TSF
MV-124	PA 06-0014 (Pierce Hardy Limited Partnership)	Lumbar Yard	67.000	TSF
MV-126	Moval Assemblage	High-Cube Warehouse	456.337	TSF
MV-128	Moreno Valley Logistics Center	High-Cube Warehouse	1351.770	TSF
		General Light Industrial	385.748	TSF
MARCH JOINT POWERS AUTHORITY				
MA-1	March Lifecare Campus Specific Plan[4]	Medical Offices	190.000	TSF
		Commercial Retail	210.000	TSF
		Research & Education	200.000	TSF
		Hospital	50	Beds
		Institutional Residential	660	Beds
MA-2	Airport Master Plan	Airport Use	559.000	TSF
MA-3	Freeway Business Center (March JPA)	High-Cube Warehouse	710	TSF
CITY OF RIVERSIDE				
R-1	P07-1028 (Alessandro Business Park)	General Light Industrial	662.018	TSF
	Alessandro and Gorgonio	Fast Food w/Drive Thru	4.050	TSF
	2100 Alessandro Boulevard	Vocational School	11.505	TSF
CITY OF PERRIS				
P-1	P 05-0113 (IDI)	High-Cube Warehouse	1750.000	TSF
P-2	P 05-0192 (Oakmont I)	High-Cube Warehouse	697.600	TSF
P-3	P 05-0477	High-Cube Warehouse	462.692	TSF
P-4	Rados Distribution Center	High-Cube Warehouse	1200.000	TSF

Table 4.0-1 Cumulative Development Land Use Summary

TAZ	Project Name	Land Use[1]	Quantity	Units[2]
P-5	Investment Development Services (IDS) II	High-Cube Warehouse	350.000	TSF
P-6	P 07-09-0018	Warehousing	170.000	TSF
P-7	P 07-07-0029 (Oakmont II)	High-Cube Warehouse	1600.000	TSF
P-8	TR 32707	SFDR	137	DU
P-9	TR 34716	SFDR	318	DU
P-10	P 05-0493 (Ridge I)	High-Cube Warehouse	700.000	TSF
P-11	Ridge II	High-Cube Warehouse	2000.000	TSF
P-12	Harvest Landing Specific Plan	SFDR	717	DU
		Condo/Townhomes	1,139	DU
		Sports Park	16.7	AC
		Business Park	1233.401	TSF
		Shopping Center	73.181	TSF
	Perris Marketplace	Shopping Center	450.000	TSF
P-13	P 06-0411 (Concrete Batch Plant)	Manufacturing	2.000	TSF
P-14	Jordan Distribution	High-Cube Warehouse	378.000	TSF
P-15	Aiere	High-Cube Warehouse	642.000	TSF
P-16	P 08-11-0005; P 08-11-0006 (Starcrest)	High-Cube Warehouse	454.088	TSF
P-17	Stratford Ranch Specific Plan	High-Cube Warehouse	1725.411	TSF
P-18	Stratford Ranch	High-Cube Warehouse	480.000	TSF
		General Light Industrial	120.000	TSF
P-19	P05-0493	Logistics	597.370	TSF
P-20	Starcrest, P011-0005; 08-11-0006	General Light Industrial	454.088	TSF
P-45	IDS 04-0464	High-Cube Warehouse	1686.760	TSF
P-46	TTM 32708 (50% Complete)	SFDR	238	DU
P-47	PM 34199	Gen. Light Industrial	46.500	TSF
	DPR 05-0387	Gen. Light Industrial	9.854	TSF
	DPR 05-0452	Warehousing	31.200	TSF
	TPM 34697	Gen. Light Industrial	47.400	TSF
	DPR 06-0396	Warehousing	159.823	TSF

[1] SFDR = Single Family Detached Residential ; MFDR = Multi-Family Detached Residential

[2] DU = Dwelling Units; TSF = Thousand Square Feet; SP = Spaces; VFP = Vehicle Fueling Positions; RMS = Rooms; AC = Acres; EMP = Employees

[3] Source: Cactus Avenue and Commerce Center Drive Commercial Center TIA, Urban Crossroads, Inc., December 9, 2008 (Revised).

[4] Source: March Lifecare Campus Specific Plan Traffic Impact Analysis, Mountain Pacific, Inc., May 2009 (Revised).

Source: (Urban Crossroads, 2015e, Table 4-4)

4.1 AESTHETICS

This subsection describes the aesthetic qualities and visual resources present on the Project site and in the site's vicinity and evaluates the potential effects that the Project may have on these resources. Descriptions of existing visual characteristics, both on-site and in the vicinity of the Project site, and the analysis of potential impacts to aesthetic resources are based, in part, on field observations and site photographs collected by T&B Planning, Inc. in April 2015 (Lusk, 2015); analysis of aerial photography (Google Earth, 2015); and Project application materials submitted to the County of Riverside and described in Section 3.0, *Project Description*, of this EIR. This subsection also is based in part on information contained in the Multipurpose Open Space Element of the County of Riverside General Plan (Riverside County, 2015c, Chapter 5), the Aesthetics section of the County of Riverside General Plan Update EIR (County of Riverside, 2015d, Section 4-04), and applicable Riverside County Ordinances (County of Riverside, n.d.).

4.1.1 EXISTING CONDITIONS

The Project site encompasses approximately 58.6 acres of land in unincorporated Riverside County, described in two parts as the "Building D Site" (approximately 37.1 gross acres) and the "Building E Site" (approximately 21.5 gross acres). The Project site is located immediately south of Oleander Avenue and is bisected by Ellsworth Street (the Building D Site is located to the east, and the Building Site is located to the west), as shown on Figure 2-5, *Aerial Photograph*. The eastern boundary of the Project site is located approximately 0.25-mile west of Harvill Avenue, and the western boundary of the Project site is located approximately 0.34-mile east of Day Street. The highest point of the Project site's natural ground surface is in the western portion of the Building E Site, at 1,665 feet above mean sea level (AMSL). The lowest point of the Project site's natural ground surface is in the eastern portion of the Building D Site at 1,556 feet AMSL. The Project site is moderately sloping from west to east.

A. Site Photographs

To illustrate the existing visual conditions of the Project site, a photographic inventory is presented herein. Figure 4.1-1, *Site Photograph Key Map*, depicts the location of four (4) vantage point photographs from public viewing areas, each of which are described below. These photographs, shown on Figure 4.1-2, *Site Photographs 1 and 2*, and Figure 4.1-3, *Site Photographs 3 and 4*, provide a representative visual inventory of the site's visual characteristics as seen from nearby locations accessible to the public:

> Site Photograph 1 (Figure 4.1-2): Site Photograph 1 was taken from the approximate midpoint of the Project site's southern boundary, looking north. The Building E Site is visible on the left-hand side of the photograph and the Building D Site is visible on the right-hand side of the photograph, with Ellsworth Street – visible as a dirt road on the lower right-hand corner of the photograph and extending toward the horizon – separating the two properties. The Building E Site is undeveloped and primarily features low, ruderal/weedy vegetation, with the exception of a few scattered trees in the mid-ground on the left-hand portion of the photograph. Evidence

Figure 4.1-1

SITE PHOTOGRAPH KEY MAP

West

East

SITE PHOTO 1: Looking north along Ellsworth Street, with Building E Site on the left-hand side of the photo (West) and Building D Site on the right-hand side of the photo (East).

East

West

SITE PHOTO 2: Looking south along Ellsworth Street, with Building D Site on the left-hand side of the photo (East) and Building E Site on the right-hand side of the photo (West).

Figure 4.1-2

NOT TO SCALE

SITE PHOTOGRAPHS 1 AND 2

East

South

SITE PHOTO 3: Looking southeast across the Building E Site, East to South.

South

West

SITE PHOTO 4: Looking southwest across the Building D Site, South to West.

Figure 4.1-3

NOT TO SCALE

SITE PHOTOGRAPHS 3 AND 4

of past discing on the Building E Site (i.e., tire tracks) is visible on the left-hand side of the photograph in the foreground. An EMWD water tank (off site) and a private maintenance access road for the water tank (off site) are visible on the left-hand side of the photograph. A mobile home on the Building D Site is visible in the mid-ground on the right-hand side of the photograph. A tractor, truck trailers, and dirt stockpiles are visible near the mobile home. Like the Building E Site, the Building D Site features low, ruderal/weedy vegetation and several trees. Along the horizon off-site in the distance, the Box Springs Mountains, Reche Canyon, and Russell Mountains are visible beneath cloud cover.

- Site Photograph 2 (Figure 4.1-2): Site Photograph 2 was taken from the intersection of Ellsworth Street and Oleander Avenue, at the approximate midpoint of the northern boundary of the Project site. The Building D site is located on the left-hand side of the photograph and the Building E site is located on the right-hand side of the photograph. In the foreground of the far left hand side of the photograph is Oleander Road, an unimproved dirt road. In the background on the far left hand side is a logistics warehouse building located northeast of the Project site. Off site in the distance along the horizon on the left-hand side of the photograph the Russell Mountains are visible beneath cloud cover. In the fore- and mid-ground of the left hand side to the center of the photograph, the corner of the Building D Site is visible and the photograph shows the undeveloped and generally flat nature of the site, with minimal vegetation throughout. The center of the photograph looks along Ellsworth Street, which is an unimproved dirt road. The right-hand side of the photograph shows the low-lying vegetation, exposed bedrock and small changes in elevation from dirt trails that transect the Building E Site. The off-site EMWD water tank is faintly visible along the horizon in the right-hand side of the photograph.

- Site Photograph 3 (Figure 4.1-3): Site Photograph 3 was taken from the northwest corner of the Building E Site, looking southeast. The left hand side of the photograph looks east along the northern boundary of the Project site and shows Oleander Avenue, which is an unimproved dirt road. In the foreground of the photograph are some of the exposed bedrock outcroppings present on the Building E Site. The middle of the photograph, from the foreground and extending outward, shows the west-to-east trending topographic relief of the site. The right hand side of the photograph shows more of the exposed bedrock, as well as one of the dirt trails that intersect the Building E Site. In the far right hand side of the photograph the off-site EMWD water tank located to the south and west of the Building E Site is visible. Along the horizon, the Russell Mountains, located approximately 4.0 miles to the east of the Project site, are partially visible beneath cloud cover.

- Site Photograph 4 (Figure 4.1-3): Site Photograph 4 was taken from the northeast corner of the Building D Site, looking southwest. Looking from left to right, the foreground of the photograph shows low-lying vegetation and scattered rocks. In the background of the photograph, the tree line separating the Building D Site from the rural residential lots and business ventures to the south is visible. Along the horizon in the right hand side of the

photograph, the off-site EMWD water tank is visible. Oleander Avenue is seen in the far right-hand side of the photograph, extending along the Project site's northern boundary.

B. Scenic Highway Corridors

No State-designated or Riverside County-designated scenic highway corridors are located in the vicinity of the Project site. The Riverside County General Plan designates the segment of the Ramona Expressway located east of I-215 as a County Eligible scenic highway (County of Riverside, 2015d, Figure 4.4.2). This highway is located approximately 1.2 miles southeast of the Project site. Due to the 1.2-mile distance and intervening development, the Project site is not visible from this roadway segment.

C. Scenic Resources

The County of Riverside General Plan Land Use Element and Open Space Element contain policies to ensure that the unincorporated portions of Riveside County are developed with aesthetically pleasing features and that existing resources are maintained and preserved. The Open Space Element defines scenic resources as "areas that are visible to the general public and considered visually attractive...including natural landmarks and prominent or unusual features of the landscape" (Riverside County, 2015c, p.OS-44). Based upon this definition, the Project site does not contain any scenic resources. The site is gently sloping without prominent topographic features; the main visible features are scattered trees, rock outcroppings, and dirt roads. The physical features present on the Project site are neither prominent nor unusual features of the landscape. The surface rock outcroppings and trees that exists on the Project site are typical for the region. No other characteristics of the Project site contain scenic resources. Off site in the distance, the Box Springs Mountains, Reche Canyon, and Russell Mountains are visually prominent and thus are considered scenice resources for purposes of evaluation herein.

D. Light and Glare

Under existing conditions, the mobile home on the Building D Site contains the only sources of artificial light on the Project site. Ellsworth Street does not contain any artificial light along the portion of the road that bisects the Project site. Oleander Avenue does not contain any artificial light along the Project site's northern boundary except at the southeast corner associated with the off-site warehouse building. Approximately 270 feet of paved roadway abuts the northeastern corner of the Building D Site, which provides access to the warehouse building immediately northeast of the Building D Site. This warehouse property and associated paved roadway contain sources of artificial light within parking lots and surrounding the building.

Mt. Palomar Observatory is located approximately 42.1 miles southeast of the Project site, on the top of Palomar Mountain in north San Diego County. The Observatory contains three active research telescopes owned and operated by the California Institute of Technology (Caltech). Since at least the 1980s, CalTech has worked with the surrounding communities to mitigate and minimize the effects of ambient light occurring from increased urbanization on the Observatory's research mission (CalTech,

2014). Properties located within a 45-mile radius of the Mt. Palomar Observatory are considered to have the potential to contribute to lighting impacts on the Observatory. This type of lighting condition is known as "sky glow." According to the Riverside County General Plan EIR, the Project site is located within Zone B of the Mt. Palomar Nighttime Lighting Policy Area (County of Riverside, 2015d, Figure 4.1.1).

4.1.2 APPLICABLE REGULATORY REQUIREMENTS

❑ Ordinance No. 655 – Regulating Light Pollution

The Riverside County Board of Supervisors adopted Ordinance No. 655 to minimize sources of undesirable light pollution that have a detrimental effect on astronomical observation and research at the Mt. Palomar Observatory. Ordinance No. 655 defines approved lighting sources, establishes the type and manner of installation and operation of lighting, and details lighting prohibitions that apply within lighting restriction Zone A and Zone B. The lighting restriction zones are based on distance from the Mt. Palomar Observatory: Zone A encompasses a 15 miles radius around the observatory and Zone B encompasses the area outside Zone A but within 45-mile radius around the observatory. (County of Riverside, 2015d, p. 4.4-11) The Project site is located within lighting restriction Zone B.

❑ Ordinance No. 915 – Regulating Outdoor Lighting

Ordinance No. 915 was adopted by the Riverside County Board of Supervisors to provide minimum requirements for outdoor lighting in order to reduce light trespass, and to protect the health, property, and well-being of residents in the unincorporated areas of the County. Ordinance No. 915 provides regulations on adequate light shielding, glare, and light trespass in order to ensure all development in Riverside County installs lighting in a way that does not jeopardize the health, safety or general welfare of Riverside County residents and degrade their quality of life. (County of Riverside, 2011). All development projects in unincorporated Riverside County are required to comply with all applicable provisions of Ordinance No. 915.

4.1.3 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to aesthetic resources if the Project or any Project-related component would:

Scenic Resources:

a. *Have a substantial effect upon a scenic highway corridor within which it is located; or*

b. *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and unique or landmark features; obstruct any prominent scenic vista or view open to the public; or result in the creation of an aesthetically offensive site open to public view.*

Mt. Palomar Observatory:

a. *Interfere with the nighttime use of the Mt. Palomar Observatory, as protected through Riverside County Ordinance No. 655.*

Other Lighting Issues:

a. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area; or

b. Expose residential property to unacceptable light levels.

4.1.4 IMPACT ANALYSIS

Scenic Resources

Threshold a) Would the project have a substantial effect upon a scenic highway corridor within which it is located?

According to the California Department of Transportation, the only designated scenic highways within Riverside County are State Route 62 (SR 62), State Route 74 (SR 74), and State Route 243 (SR 243) (CalDOT, 2013). The Project site is located approximately 5.3 miles north of SR 74, approximately 38 miles west of SR 62, and approximately 22.8 miles west of SR 243. Due to distance and intervening development and topography, and based on a viewshed analysis conducted by T&B Planning, Inc. using Google Earth Pro, the Project site is not visible from any of these designated scenic routes (Google Earth, 2015). According to the Riverside County General Plan Update EIR, the portion of the Ramona Expressway located east of I-215 is designated as a County Eligible scenic highway (County of Riverside, 2015d, Figure 4.4.2). This highway is located approximately 1.2 miles southeast of the Project site. Due to distance and intervening development, the Project site is not visible from this roadway. Because the Project site is not located within or adjacent to a scenic highway corridor and is not visible from a designated or eligible corridor, it therefore would not have a substantial effect (CalDOT, 2013). No impact would occur.

Scenic Resources

Threshold b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and unique or landmark features; obstruct any prominent scenic vista or view open to the public; or result in the creation of an aesthetically offensive site open to public view?

As described above under Subsection 4.1.1, the Project site does not contain any scenic resources. The Building D site contains one building, a mobile home, within the southwestern corner of the site, while the rest of the Building D Site and the entitrety of the Building E Site are undeveloped and contain low-lying vegetation and groupings of exposed bedrock. There are some trees within the site, primarily in the southern portion of the Buiilding D Site and along the western portion of the Building E Site. However, these trees are not dominant or prominent visual features of the site. Neither the exposed bedrock groupings nor the trees are considered scenic resources because rock outcroppings and trees are commonplace within the vicinity of the Project site. There are no landmark features on the Project site.

As shown in Figure 4.1-2 and Figure 4.1-3, the only possible viewpoints containing prominent scenic vistas or views open to the public are along Ellsworth Street and Oleander Avenue. Due to the existing regional topography and development, views beyond the Project site are limited to the north and to the east. The Riverside County General Plan Update EIR determined that a "major visible aesthetic effect...would mean affecting open views of local foothills or mountains" (County of Riverside, 2015d, p. 4.4-25). Therefore, the Project would result in aesthetic impacts if it were to substantially block open views of mountains or foothills from Ellsworth Street and Oleander Avenue.

From the Project site, the Box Springs Mountains are visible to the north along Ellsworth Street, and the Russell Mountains are visible to the east along Oleander Avenue. The distance and location of the Box Springs Mountains and Russell Mountains in relation to the Project site do not provide prominent, distinct views of these scenic resources from the site under existing conditions. The views of the Box Springs Mountains to the north would be unaffected due to the east/west orientation of Oleander Avenue in relation to Buildings D and E that are proposed south of the road. Views from Oleander Avenue of the Russel Mountains to the east would also be unaffected. Development of the Building D Site would alter the existing views from Ellsworth Street of the Russell Mountains to the east. Under existing conditions, Ellsworth Street is not paved and the mobile home property located in the southwestern corner of the Building D Site partially obscures views to the east from this unpaved roadway. The approximately 550 feet of Ellsworth Street that abuts the northwestern boundary of the Building D Site has distant views of the Russell Mountains under existing conditions. These views would be affected by development of the Building D Site. However, this minor loss of visibility is considered a less-than-significant impact because, aside from the roadway itself, there is no property immediately west of the Building D Site that is open to the public and that offers views of the Russell Mountains. Views of the Russell Mountains are available throughout western Riverside County and within the vicinity of the Project site. The Russell Mountains would still be visible from Oleander Avenue and to the east of the Building D Site.

As described in Subsection 3.4.2 of this EIR, the Project would be constructed over a period of approximately 23 months. Heavy equipment would be used, which would be visible to the immediately surrounding areas during the temporary construction period. Construction activities are a common occurrence in the developing Inland Empire region of southern California and are not considered to result in the creation of an aesthetically offensive site open to public view. Furthermore, except for the short-term use of cranes during building construction and lifts during the architectural coating phase, the construction equipment is expected to be low in height and not substantially visible to the surrounding area. All construction activities would be temporary in nature and all construction equipment would be removed from the Project site following completion of construction activities. For these reasons, temporary aesthetic effects during the Project's construction period would be less than significant.

Although the aesthetic changes to the Project site would be noticeable and obvious upon Project completion, neither Building D nor Buildnig E would result in the creation of an aesthetically offensive site open to public view. The buildings incorporate a number of features intended to soften the visual

prominence of the buildings and their loading docks from public viewing areas, including enhanced architectural treatments and landscaping. The buildings also incorporate screen walls to obscure loading and docking bays from public views along Ellsworth Street and Oleander Avenue. The visual prominence of these screening walls would be reduced through the installation of landscaping (trees, shrubs, and groundcover) in front of the walls.

When grading is complete, the building pad on the Building D Site would sit approximately 17 feet below the ground elevation of Ellsworth Street and sit between three and 17 feet below the ground elevation of abutting property to the south. The elevation differences would further reduce the visual prominance of proposed Building D as seen from off-site properties to the west and south. When grading is complete for the Building E Site, the building pad would approximately 14 feet lower in elevation than off-site property to the west, and sit three to 19 feet lower in elevation than off-site property to the south and southwest. The differences in elevation would reduce the visual prominance of the building as seen from off-site properties to the south and west. From Oleander Road, the building pads on the Building D Site and Building E Site would sit between three and 24 feet above the road, but because off-site properties located immediately north of Oleander Road are either vacant or developed with industrial warehouse uses, and because no loading docks are propoosed on the buildings' north elevations, the buildings would not create an offensive view as seen from the north. Taking into consideration the Project's grading plan and visual features of the proposed development, the proposed Project would not create an aesthetically offensive site open to public view. In fact, from some perspectives, the Project would improve the aesthetic characteristcs of the surrounding area by improving roads, installing landscaping, and introducing high-quality architectural building design to the proposed buildings on the property. Impacts would be less than significant.

Mt. Palomar Observatory:

Threshold a) Would the project interfere with the nighttime use of the Mt. Palomar Observatory, as protected through Riverside County Ordinance No. 655?

According to the Riverside County General Plan Update EIR, the Project site is located within Zone B of the Mt. Palomar Nighttime Lighting Policy Area (County of Riverside, 2015d, Figure 4.1.1). All developments within Zone B of the Mt. Palomar Nighttime Lighting Policy Area, including the Project, are required to adhere to the requirements of Riverside County Ordinance No. 655, which controls artificial lighting sources to protect the observatory. The Project's Conditions of Approval imposed by Riverside County require compliance with all such requirements, and the County of Riverside would be obligated to review subsequent building permits to ensure compliance. Thus, with mandatory compliance to Ordinance No. 655, the proposed Project would result in less-than-significant impacts to the Mt. Palomar Observatory.

Other Lighting Issues:

Threshold a) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Threshold b) Would the project expose residential property to unacceptable light levels?

Under existing conditions, the Project site contains limited sources of artificial light from the mobile home located in the southwest corner of the Building D Site. As part of Project implementation on the Building D Site, the mobile home would be removed along with the associated sources of artificial light. As part of the proposed Project, new artificial lighting features (e.g., pole mounted lights, building mounted lights, street lights) would be installed on the property to illuminate the Building D Site and Building E Site.

Lighting on the Building D Site and Building E Site would be required to comply with the conditions outlined in Riverside County Ordinances Nos. 655 and 915, which provide minimum requirements for outdoor lighting in order to reduce light trespass and to protect the health, property, and well-being of residents. Plans submitted to Riverside County for future implementing permits and approvals (i.e., building permits) would be required to demonstrate compliance with these standards. Accordingly, mandatory compliance with County Ordinances No. 655 and 915 would ensure that neither Building D nor Building E create a new source of substantial light or glare which would adversely affect day or nighttime views or expose residential properties to unacceptable light levels.

As discussed in Section 3.0, *Project Description* of this EIR, the majority of the Project's proposed exterior building surfaces would consist of tilt-up concrete construction that does not include any physical properties that would produce substantial amounts of glare. The concrete wall surfaces would be coated with flat paint. Although Building D and Building E would utilize blue-glazed glass within the architectural elements on the northeastern and northwestern corners of the buildings, the use of this material would not adversely affect daytime views of any surrounding properties because the glass would be low-reflective and would not be mirrored. Neither the glass nor the architectural design features would create new sources of glare that would adversely affect day or nighttime views in the area. Impacts related to other lighting issues would be less than significant.

The roofs of both buildings are proposed to be designed and constructed to accommodate a 1 KW photovoltaic (PV) solar array taking into consideration limitations imposed by other rooftop equipment, roof warranties, building and fire code requirements, and other physical or legal limitations. Also, the buildings are proposed to be constructed with the necessary electrical systems and other infrastructure to accommodate PV arrays in the future. Because solar panels absorb light – and do not reflect it – they would not result in substantial adverse glare effects. Potential glare impacts would be less than significant.

4.1.5 CUMULATIVE IMPACT ANALYSIS

The Project site is not visible from any designated or eligible scenic routes and therefore would not have any substantial effect upon a scenic highway corridor. Therefore, the proposed Project has no potential to contribute to a cumulatively significant scenic resource impact. As such, the Project would not have a cumulatively considerable effect upon a scenic highway corridor.

The Project site and surrounding area contain features that are typical to the region such as bedrock outcroppings and trees that do not represent substantial scenic resources. The land to the south and west of the Project site is developed under existing conditions. The undeveloped lands to the north and east of the Project site contain aesthetic features similar in nature to those found on the Project site. As discussed above, the development of a site containing exposed bedrock and sparse, low-lying vegetation does not qualify as a significant impact to scenic resources. Therefore, any future development of similarly-characterized land would not result in a significant cumulative impact. Therefore, the Project has no potential to result in a cumulatively considerable impact to scenic resources. Views of the Box Springs Mountains and the Russell Mountains are available from public viewing areas adjacent to the Project site; however, such views are available throughout the County of Riverside and are not unique to the Project site's location. Due to the distance and large size of the Box Springs Mountains and the Russell Mountains, it is unlikely that future development would significantly obscure views of these features. With buildout of the proposed Project and other developments within the Project's viewshed, there would be a less-than-significant cumulative effect to any existing scenic vistas. The Project's design features are subject to review by the County of Riverside and are subject to all applicable regulations and policies governing development. All new development in the surrounding areas would be subject to the same review and regulations to ensure that they do not result in the creation of an aesthetically offensive site open to public view. The Riverside County review process and mandatory compliance with regulations ensures that the Project would not result in a cumulatively considerable impact.

The Project is located in Zone B of the Mt. Palomar Nighttime lighting Policy Area. All developments in Riverside County that are within 45 miles of the observatory are subject to the lighting regulations included in Riverside County Ordinance No. 655 to prevent interference with nighttime use of the observatory. Similar lighting regulations are enforced by other jurisdictions that fall within a 45-mile radius of the observatory. Accordingly, the Project's mandatory compliance with Ordinance No. 655 ensures that no cumulatively considerable impact would occur.

With respect to potential cumulative light and glare impacts, County of Riverside Ordinances Nos. 655 and 915 set standards for development to ensure minimal impact upon surrounding development relating to light pollution and glare. All development projects in surrounding Riverside County areas would be required to comply with the same light reduction requirements. Surrounding cities including but not limited to Moreno Valley, Perris, and Riverside have similar lighting standards. Although cumulative development in the Project's surrounding area is expected to introduce new sources of artificial lighting and potentially reflective materials, the required compliance with the applicable requirements would ensure that future cumulative development does not introduce substantial sources

of artificial lighting or glare, including light spillage onto residential properties. As such, the Project would not contribute to cumulatively considerable, adverse impacts to the existing daytime or nighttime views in the area, or to exposure of residential property to unacceptable light levels.

4.1.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

1. Scenic Resources

Threshold (a) for the Building D Site and the Building E Site: No Impact. There are no designated scenic highways in the vicinity of the Project site. The portion of the Ramona Expressway located east of I-215 and approximately 1.2 miles southeast of the Project site is a County Eligible scenic highway, but due to the 1.2-mile distance and intervening development, the Project site is not visible from this roadway segment. As such, the Project has no potential to adversely impact views from a scenic highway corridor.

Threshold (b) for the Building D Site and the Building E Site: Less-than-Significant Impact. The proposed Project would not substantially damage scenic resources or significantly obstruct any prominent scenic vistas or public views. The Project site does not contain any unique scenic resources. Development of the Project would not substantially block views of scenic mountain resources in the distance. Also, the proposed Project incorporates design elements such as landscaping, landscaped slopes, walls, and architectural features to ensure that development proposed on the Building D and Building E Sites would not create an aesthetically offensive site open to public view.

2. Mt. Palomar Observatory

Threshold (a) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project site is located within Zone B of the Mt. Palomar Observatory Nighttime Lighting Policy Area. Mandatory compliance with Riverside County Ordinance No. 655 will ensure that the Project does not interfere with the nighttime use of the Mt. Palomar Observatory and impacts would be less than significant.

3. Other Lighting Issues

Threshold (a) for the Building D Site and the Building E Site: Less-than-Significant Impact. Construction and operation of Building D and Building E would introduce new sources of artificial light and typical of business park developments. No glare-producing building materials are proposed. Mandatory compliance with Riverside County Ordinances Nos. 655 and 915, which provide lighting standards to eliminate adverse effects of lighting associated with development, will ensure that the Project does not create new sources of substantial light or glare that affect day or nighttime views in the area.

Threshold (b) for the Building D Siet and the Building E Site: Less-than-Significant Impact. The Project would not expose residential properties to unacceptable light levels. Mandatory compliance with Riverside County Ordinances Nos. 655 and 915, which provide lighting and light shielding

standards, would ensure that that Project does not expose off-site residential properties to unacceptable light levels.

4.1.7 MITIGATION

Applicable County Regulations and Design Requirements

The following are applicable regulations and design requirements to which the Project is required to comply. Although these regulations and requirements technically do not meet CEQA's definition for mitigation, they are listed below for information purposes.

- The Project is required to comply with Riverside County Ordinance No. 655, which is intended to restrict the permitted use of certain light fixtures emitting light into the night sky which could have a detrimental effect on astronomical observation and research. Ordinance No. 655 sets forth requirements for lamp source and shielding of light emissions for outdoor fixtures to reduce "skyglow" or light pollution that affects day or nighttime views from the Mt. Palomar Observatory (located approximately 24 miles southeast of the Project site in northern San Diego County).

- The Project is required to comply with Riverside County Ordinance No. 915, which is intended to provide minimum requirements for outdoor lighting in order to reduce light trespass. Ordinance No. 915 provides regulations on adequate lighting shielding, glare, and light trespass in order to ensure all development in Riverside County installs lighting in a way that does not jeopardize the health, safety, or general welfare of Riverside County residents and degrade their quality of life.

Mitigation

Impacts would be less than significant. Mitigation is not required.

4.2 AGRICULTURE & FOREST RESOURCES

The following analysis is based on information obtained in part from the United States Department of Agriculture (USDA) Natural Resources Conservation Service (USDA NRCS, 2015), the California Department of Conservation (CDC) (CDC, 2012) (CDC, 2014) (CDC, 2015a) (CDC, 2015b), and the County of Riverside General Plan (Riverside County, 2003a). All references used in this Subsection are listed in EIR Section 7.0, *References*.

4.2.1 EXISTING CONDITIONS

A. Forest Resources

No forest resources are located on the Project site or in the immediate vicinity of the Project site. As shown on Figure 2-5, *Aerial Photograph*, lands surrounding the Project site are largely void of tree groves and do not contain forestry resources. Based on biological surveys conducted by Cadre Environmental (Cadre), the Building D Site contains disturbed land, gravel road/splay areas, structure (mobile home), and several scattered trees (Cadre, 2015a, pp. 8-9) which do not constitute a forest. Based on biological surveys conducted by Hernandez Environmental Services (HES), the Building E Site contains disturbed non-native vegetation, granitic rock outcrops, and Peruvian Pepper trees (HES, 2015b, pp. 6-7) which do not constitute a forest. None of the on-site vegetation communities are associated with forest land. The trees are isolated and in small groupings and do not constitute a forest or forest resource. As such, there are no forest resources within the Project site.

B. Agricultural Resources

There are no lands currently used for commercial agricultural purposes on the Project site or in the area immediately surrounding the Project site. The Project site is located in a portion of Riverside County around the I-215 corridor that is developing as an employment center, containing business park, distribution warehousing, e-commerce, and light industrial land uses. Under existing conditions, and as shown on Figure 2-5, *Aerial Photograph*, lands north of the Project site are largely undeveloped, with exception of a logistics warehouse building located north of the Project site's northeastern corner. To the east are undeveloped lands, several scattered single family homes, and an additional warehouse building located along the eastern edge of Harvill Avenue. To the south of the Project site are several large lot, single family rural homes and business ventures. Near the southwest corner of the property is an EMWD water tank. To the west of the Project site are undeveloped lands, beyond which are large lot single family homes. Some of the rural residential lots near the Project site contain ancillary agricultural uses such as gardens and animal corrals, but the primary use is rural residential and not agriculture.

No evidence exists that the Project site was ever used for agriculture purposes. Based on field reconnaissance, key person interviews, agency records review, historical research, and government database review conducted during the Phase I Environmental Site Assessments prepared for the Building D Site and the Building E Site by Kennedy/Jenks Consultants (refer to *Technical Appendices G1 and G2*), the Project site has historically been comprised of vacant, undeveloped land (Kennedy/Jenks, 2014) (Kenndy/Jenks, 2015). Currently, the Project site still consists of vacant,

undeveloped land, with exception of a mobile home and a concrete pad located in the southwestern portion of the Building D Site, unimproved Ellsworth Street that separates the Building D Site and the Building E Site, and unimproved dirt roadways that occur throughout the western and southeastern portions of the Project site. No agricultural uses are present.

C. *Land Use, Zoning, and Agricultural Lands Designations*

Planning and zoning documents that have relevance to potential forestry and agricultural resource designations on the Project site are the Riverside County General Plan, the Riverside County Zoning Ordinance, and the CDC Farmland Mapping & Monitoring Program (FMMP). Each of these are described below.

1. *County of Riverside General Plan*

The Riverside County General Plan is the prevailing long-range planning document for all lands in unincorporated Riverside County. The General Plan does not assign any forestry or agricultural designations to the Project site. As shown on Figure 2-2, *Existing General Plan Land Use Designations*, the Riverside County General Plan and Mead Valley Area Plan designate the majority of the Building D Site for "Community Development–Light Industrial (CD-LI)" land uses and the southwest portion of the Building D Site for "Community Development-Business Park (CD-BP)" land uses. The entirety of the Building E Site is designated for "Community Development-Business Park (CD-BP)" land uses. (Riverside County, 2003a, LU-4) None of these designations are intended for agriculture or forest use.

2. *County of Riverside Zoning Ordinance Designations*

As shown on Figure 2-3, *Existing Zoning Designations*, no portion of the Project site is zoned for forest use or agricultural use. Other zoning designations applied to the Project site include "Manufacturing – Medium (M-M)," "Rural Residential (R-R)," and "Industrial Park (I-P)" on the Building D Site and "Rural Residential ½ Acre Lot Sizes (R-R-1/2)" and "Industrial Park (I-P)" on the Building E Site. The R-R-1/2 and M-M zoning designations allow for limited and small-scale agricultural uses, but agriculture is not a permitted primary use. Agricultural is not permitted in areas zoned I-P.

Adjacent and surrounding zoning designations include "I-P" and "M-M" to the north; "Manufacturing – Service Commercial (M-SC)" and "I-P" to the east; "R-R" and "A-1-1" to the south; and "A-1-1" to the west. As mentioned previously, no properties in the immediate vicinity of the Project site are used primarily for agricultural purposes.

3. *Farmland Classifications*

The CDC identifies farmlands throughout the State of California as part of its Farmland Mapping & Monitoring Program (FMMP), pursuant to the provisions of CA Government Code § 65570. The FMMP utilizes data from the Natural Resources Conservation Service (NRCS) soil survey and current land use information to categorize lands into eight separate mapping categories: Prime Farmlands, Farmland of Statewide Importance, Unique Farmlands, Farmland of Local Importance, Grazing Land,

Urban and Built-up Land, Other Land, and Water. These eight classifications are dependent on soil characteristics, climatic conditions, and water supply. "Farmland" is defined in Section II(a) of Appendix G of the State CEQA Guidelines to mean "Prime Farmland," "Farmland of Statewide Importance," or "Unique Farmland" ("Farmland"). These Farmland types are described below.

- Prime Farmland: Farmland with the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date. (CDC, 2015a)
- Farmland of Statewide Importance: Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date. (CDC, 2015a)
- Unique Farmland. Farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date. (CDC, 2015a)

As shown on Figure 4.2-1, *FMMP Farmlands Map*, no portions of the Project site contain Prime Farmland, Farmland of Statewide Importance, or Unique Farmland ("Farmland"). As shown on Figure 4.2-1, a small portion of the Building E Site along its western boundary contains land defined by the FMMP as "Other Land." The remainder of the Building E Site and the entirety of the Building D Site are designated as "Farmland of Local Importance." These designations are defined by the CDC as:

- Other Land: Land not included in any other mapping category. Common examples include low density rural developments, brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock; poultry or aquaculture facilities; strip mines; borrow pits; and water bodies smaller than 40 acres.
- Farmland of Local Importance: Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.

Farmland of Local Importance is assigned to land that is either currently producing agricultural crops, or has the capability of production, but does not meet the criteria of Prime Farmland, Farmland of Statewide Importance, or Unique Farmland. According to the CDC classifications, the large portion of the Project site that is designated Farmland of Local Importance likely (about 57.7 acres) carries this designation because the soils in this area are capable of agricultural production, but the property has never been used for agriculture and lacks available irrigation water for use in agricultural crop production and no active farming is occurring in the general area.

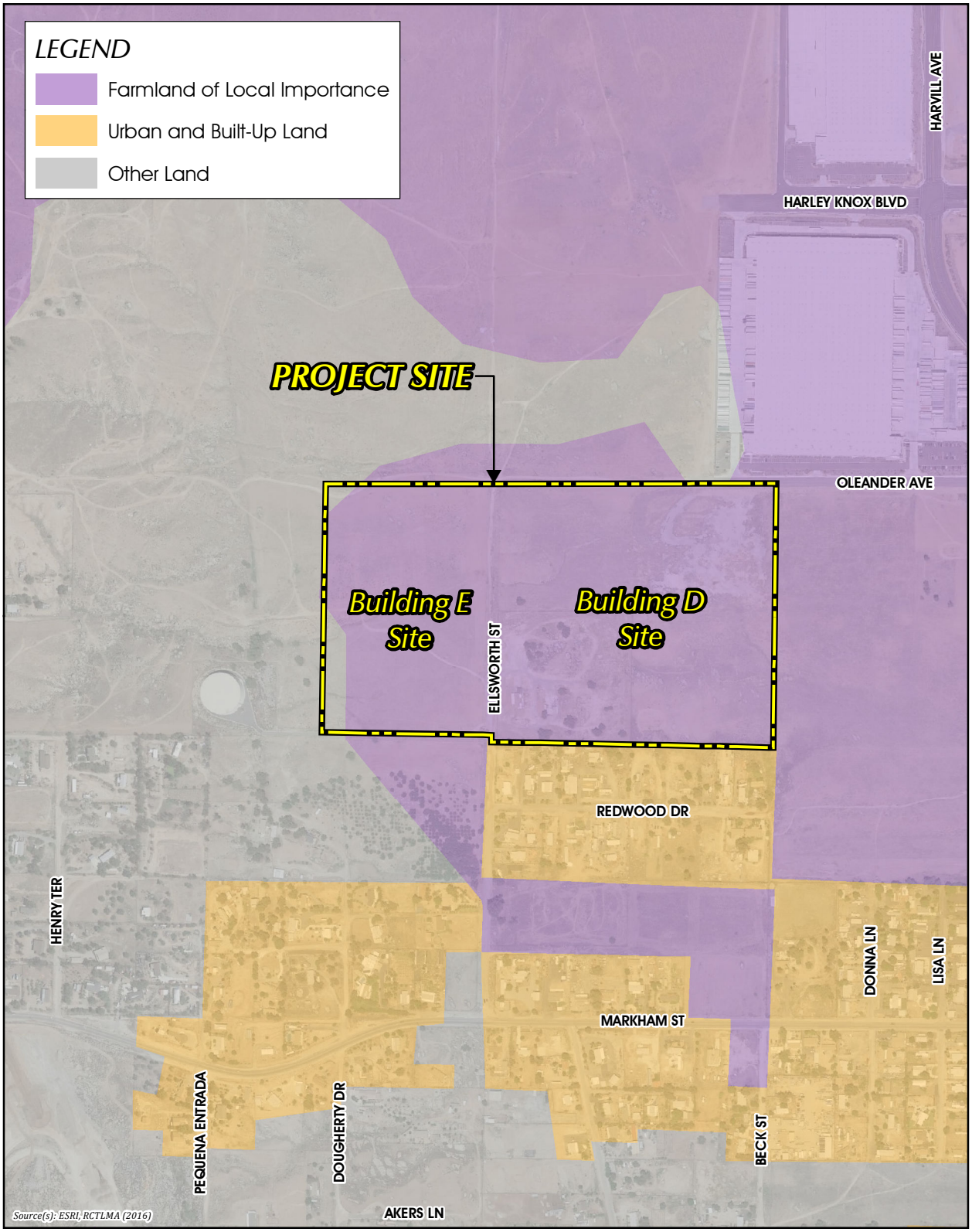


Figure 4.2-1

FMMP FARMLANDS MAP

4. Storie Index

The Storie Index is a rating system first developed by R. Earl Storie in 1933 that determines the value of farmland by evaluating the soil type on a given property. The Storie Index rating system ranks each soil according to four general factors: 1) the characteristics of the soil profile and its depth; 2) the texture of the surface soil; 3) the slope of the land on which the soil is located; and 4) other factors, including drainage, salt content, erosion, and alkali. A score ranging from 0 to 100 percent is determined for each factor, and the scores are then multiplied together to derive an index rating. Soils are graded according to their index on a scale of 1 through 6. (UC, 1978)

Grade 1 soils (excellent) score between 80 and 100 percent and have few or no limitations that restrict their use for crops. Grade 2 soils (good) score between 60 and 79 percent and have few special management needs and are suitable for most crops, but they have minor limitations that narrow the choice of crops. Grade 3 soils (fair) score between 40 and 59 percent and are suited to a few crops or to special crops and require special management. Grade 4 soils (poor) score between 20 and 39 percent and are severely limited for crops, and if used, require careful management. Grade 5 soils (very poor) score between 10 and 19 percent and generally are not suited to cultivated crops but can be used for pasture and range. Grade 6 soils (nonagricultural) consist of soils and land types that score less than 10 percent and generally are not suited to farming. (USDA NRCS, 2015)

Figure 4.2-2, *Soils Map*, depicts the distribution of soils across the Project site and Table 4.2-1, *Soil Types*, summarizes the soil types found on the Project site and their associated Storie Index rating. As shown, 18.9 % of the Project site contains soils that have a Storie Index Grade of 1 and the remaining 81.1%% of the Project site's soils have a Storie Index Grade of 3, 4, and 5 (fair to very poor).

4.2.2 APPLICABLE REGULATORY SETTING

A. California Land Conservation Act

The California Land Conservation Act (CLCA) of 1965, also known as the Williamson Act (CA Gov. Code § 51200, *et seq*.), allows owners of agricultural land to have their properties assessed for tax purposes on the basis of agricultural production rather than current market value. The main purpose of the Williamson Act is to encourage property owners to continue to farm their land, and to prevent the premature conversion of farmland to urban uses. The Williamson Act allows local governments to enter into contracts with landowners to restrict property to agricultural or related open space uses for a minimum of 10 years in exchange for a lower property tax assessment to the landowner. The contract remains in effect until the land owner or local government cancels the contract by filing a notice of non-renewal. Once canceled, the land is protected under the "non-renewal" status for a period of 10 years, during which time tax rates gradually increase during the non-renewal period, until they reach normal (i.e., non-restricted) levels upon termination of the contract.

Participation in this program is voluntary and requires 100 contiguous acres of agricultural land under one or more ownerships to file an application for agricultural preserve status with the Riverside County

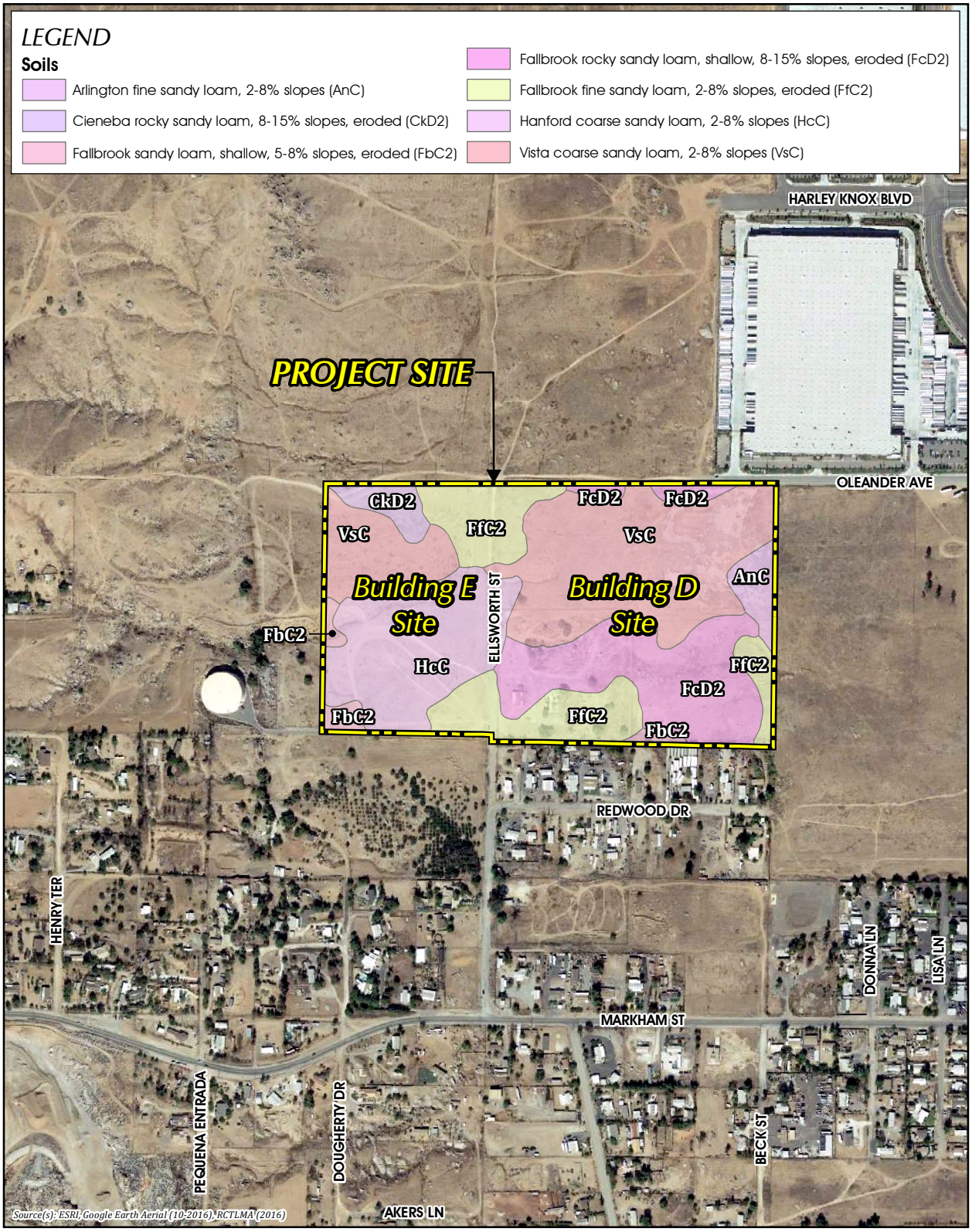


Figure 4.2-2

SOILS MAP

Table 4.2-1 Soil Types

SOIL SYMBOL	SOIL UNIT NAME	% OF PROJECT SITE	STORIE INDEX RATING
AnC	Arlington fine sandy loam, 2 to 8 percent slopes	2.7%	Grade 4-Poor
CkD2	Cieneba rocky sandy loam, deep, 8 to 15 percent slopes, eroded	2.7%	Grade 4-Poor
FbC2	Fallbrook sandy loam, shallow, 5 to 8 percent slopes, eroded	2.4%	Grade 4-Poor
FcD2	Fallbrook rocky sandy loam, shallow, 8 to 15 percent slopes, eroded	20.2%	Grade 4-Poor
FfC2	Fallbrook fine sandy loam, 2 to 8 percent slopes, eroded	17.4%	Grade 3-Fair
HcC	Hanford coarse sandy loam, 2 to 8 percent slopes	18.9%	Grade 1-Excellent
VsC	Vista coarse sandy loam, 2 to 8 percent slopes	35.7%	Grade 3-Fair

(USDA NRCS, 2015)

Planning Department (Riverside County, 2003a, p. OS-14). No portion of the Project site is covered by a Williamson Act contract. In addition, no properties immediately adjacent to the Project site are covered by a Williamson Act contract. (CDC, 2012)

B. Agricultural Preserves

An agricultural preserve defines the boundary of an area within which a city or county will enter into contracts with landowners. The boundary is designated by resolution of the board of supervisors or city council having jurisdiction. Only land located within an agricultural preserve is eligible for a Williamson Act contract. Preserves are regulated by rules and restrictions designated in the resolution to ensure that the land within the preserve is maintained for agricultural or open space use. (CDC, 2015b)

An agricultural preserve must consist of no less than 100 acres. However, in order to meet this requirement, two or more parcels may be combined if they are contiguous or in common ownership. Smaller agricultural preserves may be established if a board or council determines that the unique characteristic of the agricultural enterprise in the area calls for smaller agricultural units, and if the establishment of the preserve is consistent with the city or county's General Plan. Preserves may be made up of land in one or more ownerships. Property owners with less than 100 acres may combine

with neighbors to form preserves, provided the properties are contiguous. (CDC, 2015b) The Project site is not located in a Riverside County Agricultural Preserve.

C. *Riverside County Ordinance No. 625 (Right-to-Farm Ordinance)*

According to the Riverside County Right-to-Farm Ordinance, any new development that is introduced into an area where agricultural uses have been occurring for more than three years, forgo their right to claim that the ongoing agricultural use is a nuisance (due to odors, dust, noise, and other effects typical to an agricultural operation). Ordinance No. 625 states:

> *"The Riverside County Board of Supervisors finds that where non-agricultural land uses extend into agricultural areas or exist side-by-side, agricultural operations often become the subject of nuisance complaints. As a result, some agricultural operations are forced to cease or curtail operations, others are discouraged from making investments in farm improvements, and efficient agricultural production is generally discouraged due to burdensome litigation against farmers."*
>
> *"No agricultural activity, operation, or facility, or appurtenances thereof, conducted or maintained for commercial purposes, and in a manner consistent with proper and accepted customs and standards, as established and followed by similar agricultural operations in the same locality, shall be or become a nuisance, private or public, due to any changed condition in or about the locality, after the same has been in operation for more than three (3) years if it was not a nuisance at the time it began."*

4.2.3 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to agriculture and/or forest resources if the Project or any Project-related component would:

Agriculture

a) *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use; or*

b) *Conflict with existing agricultural zoning, agricultural use or with land subject to a Williamson Act contract or land within a Riverside County Agricultural Preserve; or*

c) *Cause development of non-agricultural uses within 300 feet of agriculturally zoned property (Ordinance No. 625 "Right-to-Farm"; or*

d) *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use.*

Forest

a) *Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code*

section 4526), or timberland zoned Timberland Production (as defined by Govt. Code section 51104(g));or

b) *Result in the loss of forest land or conversion of forest land to non-forest use; or*

c) *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of forest land to non-forest use.*

4.2.4 IMPACT ANALYSIS

Agriculture	
Threshold a:	***Would the Project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?***

According to the FMMP and as reported by Riverside County GIS, the Project site contains land defined by the FMMP as "Other Lands" and "Farmland of Local Importance." There are no portions of the Project site that contain Prime Farmland, Farmland of Statewide Importance, or Unique Farmland ("Farmland"). Also, there are no areas surrounding the Project site that contain Farmland. Areas surrounding the Project site are designated as "Farmland of Local Importance," "Urban and Built-Up Land," and "Other Lands." (RCIT, 2015) (CDC, 2014)

As shown on Figure 4.2-2 and as identified on Table 4.2-1, only 18.9% of the Project site has a Storie Index Grade of 1, which indicates that these soils have only slight limitations for agricultural use. The remainder of the Project site's soils (81.1%) have Storie Index Grades of 3, 4, and 5, which indicates that these soils have severe limitations for agricultural use. As shown on Figure 4.2-2, the Hanford coarse sandy loam, on 2 to 8 percent slopes (HcC), which have a Storie Index Grade of 1, are located in an area of the Project site that is divided by Ellsworth Street. The division of the lands mapped with HcC soils by Ellsworth Street effectively precludes this area of the Project site from being productively farmed. In addition, as discussed in Subsection 4.2.1, the lands surrounding the Project site do not contain farmland. The only agricultural uses located in the surrounding area are ancillary gardens and animal corrals on rural residential lots, and the primary use of these lands is rural residential and not agriculture.

Because no evidence exists that the Project site was ever used for agricultural use, the site is not surrounded by lands under active agricultural production, and the majority of the Project site is not suitable for productive farmland according to the land capability classification of the USDA Storie Index, the Project has no potential to result in direct or indirect impacts to Farmland. No impact would occur.

Agriculture	
Threshold b:	***Would the Project conflict with existing agricultural zoning, agricultural use or with land subject to a Williamson Act contract or land within a Riverside County Agricultural Preserve?***

A. Williamson Act Contracts and Agricultural Preserves

According to mapping information available from Riverside County GIS, the Project site is not included within any active Agricultural Preserves. The nearest Agricultural Preserve ("Woodcrest 5") occurs approximately 2.1 miles west of the Project site (RCIT, 2015). Due to the 2.1 mile distance and intervening topography, the Project would have no potential to conflict with the existing Agricultural Preserve ("Woodcrest 5"). In addition, as discussed in Subsection 4.2.1, no portion of the Project site is covered by a Williamson Act contract. In addition, no properties immediately adjacent to the Project site are covered by a Williamson Act contract. (CDC, 2012)

B. Agricultural Zoning and Agricultural Use

No portion of the Building D Site is zoned for agricultural use. Lands immediately to the west and south of the Building E Site are zoned A-1-1. However, none of the surrounding lands are currently used for agricultural production, with the exception of ancillary agricultural activities such as gardens and animal corrals that occur on off-site rural residential lots for personal use. A discussion of potential impacts associated with agricultural zoning and use as a result of implementing the proposed Project on the Building D Site and Building E Site is presented below.

1. Building D Site

The Building D Site is does not contain any agricultural uses and is zoned "Manufacturing – Medium (M-M)," "Rural Residential (R-R)," and "Industrial Park (I-P)." Accordingly, the Building D Site does not contain land primarily zoned for agriculture or land used for agricultural purposes. Thus, the Project as proposed on the Building D Site would not conflict with existing agricultural zoning or agricultural use. Further, as shown on Figure 2-3, *Existing Zoning Designations*, no properties with agricultural zoning are located immediately adjacent to the Building D Site; thus, implementation of the proposed Project on the Building D Site has no potential to indirectly impact off-site agriculturally zoned parcels. Ancillary agricultural uses that occur on rural residential properties to the south of the Building D Site would be unaffected in their use by the Project. No adverse impacts to agricultural zoning or agricultural use would occur.

2. Building E Site

The Building E Site is zoned "Rural Residential ½ Acre Lot Sizes (R-R-1/2)" and "Industrial Park (I-P)." Proposed Change of Zone No. 7873 seeks to change the zoning designation on the portion of the property zoned R-R-1/2 to I-P. Thus, the Project as proposed on the Building E Site would not conflict with existing agricultural zoning or agricultural use.

No property in the surrounding area is currently being used for agricultural production as a primary use. In addition, the Building E Site is physically separated on all but one side from A-1-1 zoned property by an EMWD water tank (the water tank site is also zoned A-1-1), it is unlikely and highly speculative that Project implementation on the Building E Site could adversely affect off-site agriculturally zoned property. The Tentative Parcel Map proposed on the Building E Site suggests a grading concept that would create a manufactured slope measuring up to 14 feet in height on the west side of the proposed development pad, and facing east into the Building E Site, which would physically separate development on the Building E Site from off-site properties zoned A-1-1. This physical feature, a large manufactured slope, would further preclude any potential for development on the Building E Site from physically effecting agriculturally zoned lands to the west. For these reasons, impacts to agricultural zoning and agricultural use would be less than significant.

Agriculture	
Threshold c)	***Would the Project cause development of non-agricultural uses within 300 feet of agriculturally zoned property (Ordinance No. 625 "Right-to-Farm")?***

Properties immediately to the west, south, and southwest of the Project site are zoned A-1-1, although they are not used for agricultural production. When proposed grading of the Building D Site is complete, the building pad on the Building D Site would sit between three and 17 feet below the ground elevation of abutting A-1-1 zoned property to the south. When grading of the Building E Site is complete, the building pad would be approximately 14 feet lower in elevation than off-site A-1-1 zoned property to the west. Taking into consideration that agricultural operations do not occur on the adjacent A-1-1 zoned properties and the proposed building pads would be physically separated from the off-site adjacent A-1-1 zoned property by a manufactured slope and retaining wall, the Project has no potential to result in off-site indirect effects on agriculturally zoned properties to the south, west, and southwest.

In the unlikely event that agricultural activity commences on the properties immediately to the west and south of the Project site that are zoned A-1-1, and continues for at least three years before the Project site is developed, the proposed Project would be required to comply with Riverside County Ordinance No. 625 (Riverside County Right-to-Farm Ordinance) (Riverside County, 1994). Ordinance No. 625 specifies that if any agricultural operation has been in place for at least three years and is not considered a nuisance operation at the time the operation began, no change in surrounding land uses may cause said operation to become a nuisance. Mandatory compliance with Ordinance 625, if necessary, would ensure that any potential conflicts between the proposed Project and existing agriculturally zoned property within 300 feet of the Project site do not occur, thereby resulting in a less-than-significant impact to existing agriculturally zoned properties located in the Project site's vicinity. With mandatory compliance to Ordinance No. 625, as would be required by the County, impacts would be less than significant.

Agriculture	
Threshold d)	***Would the Project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?***

Refer to the analyses under Agricultural Thresholds (a) and (b). Due to the lack of agricultural activity and Farmland in the Project site's vicinity, the Project has no potential to result in changes to the existing environment which, due to their location or nature, could result in the conversion of Farmland to a non-agricultural use.

Forest	
Threshold a)	***Would the Project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Govt. Code section 51104(g))?***

The Project site is not zoned as forest land. There are no lands within the Project site's vicinity that are zoned for forest land, timberland, or Timberland Production (RCIT, 2015). As such, there is no potential for the Project to conflict with or cause the rezoning of such lands. No impact would occur.

Forest	
Threshold b)	***Would the Project result in the loss of forest land or conversion of forest land to non-forest use?***

The Project site does not contain forest land. There are no forest lands within the Project site's vicinity (Google Earth Pro, 2015) (Riverside County, 2003a, Figure OS-3). As such, there is no potential for the proposed Project to cause the loss of forest land or the conversion of forest land to non-forest use. No impact would occur.

Forest	
Threshold c)	***Would the Project involve other changes in the existing environment which, due to their location or nature, could result in conversion of forest land to non-forest use?***

Due to the absence of forest lands on the Project site and in its vicinity, there is no potential for the proposed Project to involve other changes in the existing environment which, due to their location or nature, could result in the conversion of forest land to non-forest use. No impact would occur.

4.2.5 CUMULATIVE IMPACT ANALYSIS

1. Agriculture

As discussed under Agriculture Threshold (a), the Project site does not contain Prime Farmland, Farmland of Statewide Importance, or Unique Farmland ("Farmland"). In addition, 81.1% of the Project site's soils have Storie Index ratings that indicate severe limitations for crop production. Thus, the Project as proposed on the Building D Site and the Building E Site has no potential to result in a cumulatively considerable impact to Farmland as defined in CEQA Guidelines Appendix G Section II (a).

The Riverside County General Plan defines productive agricultural lands as those involved in a long-term substantial investment to agricultural use and with long-term economic viability for agricultural uses (Riverside County, 2015d, p. 4.5-1). As discussed under Threshold (b), the Project site does not contain any Williamson Act contracts or land within a Riverside County Agricultural Preserve and the Project site has not historically been used for agricultural use nor is it used for agricultural use under existing conditions. Therefore, the Project as proposed on the Building D Site and Building E Site has no potential to result in a cumulatively considerable impact to land subject to a Williamson Act contract or land within a Riverside County Agricultural Preserve.

The County of Riverside recognizes the diminishment of agricultural lands County-wide over the past several decades. Riverside County General Plan EIR No. 521, which evaluated the County's most recent General Plan Update, determined that future development accommodated by the land use and policy changes suggested in the General Plan Update (GPA No. 960) would introduce new urban uses within 300 feet of agriculturally zoned property and contribute to the demand for additional development and infrastructure that would further fuel the conversion of agricultural lands to non-agricultural uses. (Riverside County, 2015d, p. 4.5-33) As discussed in Subsection 4.2.4, the Project as proposed on the Building D and Building E Site has less-than-significant potential to considerably contribute to a cumulatively impact associated with land zoned and/or used for agriculture. No portion of the Project site has ever been used for agricultural purposes and no agricultural uses are located on or immediately adjacent to the site under existing conditions.

As discussed under Thresholds (b) and (c), the Building D Site and Building E Site do not contain land zoned for agriculture. The Building E Site is physically separated on all but one side from other A-1-1 zoned property by an EMWD water tank (the water tank site is zoned A-1-1), it is unlikely and highly speculative that Project implementation on the Building E Site could adversely affect off-site agriculturally zoned property. Further, the Tentative Parcel Map proposed on the Building E Site suggests a grading concept that would create a manufactured slope measuring up to 14 feet in height on the west side of the proposed development pad, which would separate development on the Building E Site from off-site properties zoned A-1-1. Similarly, the southern boundary of the Project site would sit lower in elevation than adjacent A-1-1 zoned property. Due to the physical separation by manufactured slopes, any potential agricultural zoning conflict is deemed less than significant and less than cumulatively considerable. In the unlikely event that agricultural activity commences on these

off-site properties and continues for at least three years before the Project site is developed, the proposed Project would be required to comply with Riverside County Ordinance No. 625 (Riverside County Right-to-Farm Ordinance) (Riverside County, 1994). As discussed under Agriculture Threshold (c), mandatory compliance with Ordinance 625, if necessary, would ensure that any potential conflicts between the proposed Project and existing agriculturally zoned property within 300 feet of the Project site do not occur, thereby resulting in a less-than-significant impact to existing agriculturally zoned properties located in the Project site's vicinity. Compliance with Ordinance 625.1, if necessary, would prevent or reduce any potentially cumulatively considerable significant impacts.

As discussed under Agriculture Threshold (d), due to the lack of agricultural activity and Farmland in the Project site's vicinity, the Project has no potential to result in changes to the existing environment which, due to their location or nature, could result in the conversion of Farmland to a non-agricultural use. Thus, the Project as proposed on the Building D Site and the Building E Site has no potential to result in a cumulatively considerable impact associated with other changes in the existing environment which could result in conversion of Farmland, to non-agricultural use.

2. Forest

Because the Project site is not zoned as forest land, there are no lands within the Project site's vicinity that are zoned for forest land, timberland, or Timberland Production, the Project site does not contain forest land and there are no forest lands within the Project site's vicinity, the Project as proposed on the Building D Site and the Building E Site has no potential to result in a cumulatively considerable impact to forest resources.

4.2.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Agriculture

Threshold (a) for the Building D Site and the Building E Site: No Impact. The Project as proposed on the Building D Site and Building E Site would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use. There is no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) on the Project site and a large majority of the on-site soils have severe limitations for agricultural crop production.

Threshold (b) for the Building D and the Building E Site: Less-than-Significant Impact. The Project as proposed on the Building D Site and the Building E Site does not contain land zoned for agriculture or land used for agricultural purposes. With mandatory compliance to Riverside County Ordinance No. 625, impacts would be less than significant.

Threshold (c) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would have less-than-significant impacts to off-site properties that are agriculturally zoned. Aspects of the Building D and Building E Sites' physical designs, including the proposed creation of manufactured slopes around the building pad perimeters, would provide a physical separation between the proposed development and off-site agriculturally zoned property. Also, no surrounding property

is currently used primarily for agricultural purposes. Should an off-site property within 300 feet become used for agriculture, mandatory compliance to Ordinance No. 625, as would be required by the County, would further ensure that impacts would be less than significant.

Threshold (d) for the Building D Site and the Building E Site: No Impact. Due to the lack of agricultural activity and Farmland in the Project vicinity, the Project has no potential to result in changes to the existing environment which, due to their location or nature, could result in the conversion of Farmland to a non-agricultural use.

Forest

Threshold (a) for the Building D Site and the Building E Site: No Impact. The Project site is not zoned as forest land and there are no lands within the Project site's vicinity that are zoned for forest land, timberland, or Timberland Production. Thus, implementation of the proposed Project on the Building D Site and the Building E Site would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production.

Threshold (b) for the Building D Site and the Building E Site: No Impact. There is no forest land on the Project site. Thus, implementation of the proposed Project on the Building D Site and the Building E Site would not result in the conversion of forest land to non-forest use.

Threshold (c) for the Building D Site and the Building E Site: No Impact. The Project site does not contain forest land. Thus, the Project would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of forest land to non-forest use.

4.2.7 MITIGATION

Applicable County Regulations and Design Requirements

The following are applicable regulations and design requirements to which the Project is required to comply. Although these regulations and requirements technically do not meet CEQA's definition for mitigation, they are listed below for information purposes.

- The Project is required to comply with Riverside County Ordinance No. 625, which requires that when non-residential uses are developed adjacent to properties zoned primarily for agricultural purposes (that support agricultural operations that have been in place for at least three years and not considered a nuisance operation at the time the operation began), future property owners must be notified of any agricultural operations that are on-going in the area, and acknowledge that such agricultural uses shall not be the subject of nuisance complaints.

Mitigation

Impacts would be less than significant. Mitigation is not required.

4.3 AIR QUALITY

The analysis presented in this subsection is based in part on two air quality technical reports. The air quality impact analysis prepared for the Project is titled, "Knox Business Park Air Quality Impact Analysis County of Riverside," prepared by Urban Crossroads, Inc., dated August 5, 2016, and appended to this EIR as *Technical Appendix B1* (Urban Crossroads, Inc., 2016a). The mobile source health risk assessment prepared for the Project is titled, "Knox Business Park Mobile Source Health Risk Assessment County of Riverside," prepared by Urban Crossroads, Inc., dated January 28, 2016 (Revised), and appended to this EIR as *Technical Appendix B2* (Urban Crossroads, Inc., 2016b). Please note that *Technical Appendix B1* and *Technical Appendix B2* were prepared prior to the Project Applicant's decision to reduce the size of the Building E Site and the size of its proposed building to the current configurations described in EIR Section 3.0, *Project Description*. Therefore, Urban Crossroads, Inc. prepared a supplemental analysis to address the reduction in size of the Building E Site and its proposed building. The update letter, "Knox Business Park Supplemental Air Quality Impact Analysis, Greenhouse Gas Impact Analysis, & Mobile Source Health Risk Assessment" is dated February 9, 2017, and is appended to the front of *Technical Appendix B1*.

Based on the results of Urban Crossroads' Supplemental Analysis, all of the Project's air quality pollutant emissions and the risks to human health imposed by the Project's mobile source emission levels would be less than the quantities disclosed in *Technical Appendix B1* and *Technical Appendix B2*. The reductions in emission levels are due to a reduction in daily traffic trips that would occur from constructing and operating a smaller building on the Building E Site than was analyzed in the 2016 reports. Thus, the Project's 2016 Air Quality Impact Analysis (*Technical Appendix B1)* and 2016 Mobile Source Health Risk Assessment (*Technical Appendix B2*) disclose greater level of impacts that are projected to occur from the currently proposed Project. (Urban Crossroads, Inc., 2017a)

These and all other references relied upon in this Subsection are listed in EIR Section 7.0, *References*.

4.3.1 EXISTING CONDITIONS

A. Air Basin

The Project site is located in the South Coast Air Basin (SCAB, or "Basin"), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAB encompasses approximately 6,745 square miles and includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The SCAB is bound by the Pacific Ocean to the west; the San Gabriel, San Bernardino, and the Jacinto Mountains to the north and east, respectively; and the San Diego County line to the south. The Riverside County portion of the Salton Sea Air Basin, which is located southeast of the Project site, is bound by the San Jacinto Mountains in the west and spans eastward up to the Palo Verde Valley (Urban Crossroads, Inc., 2016a, p. 7)

B. Regional Climate and Meteorology

The regional climate – temperature, wind, humidity, precipitation, and the amount of sunshine – has a substantial influence on air quality. The distinctive climate of the SCAB is determined by its terrain and geographical location, which comprises a coastal plain connected to broad valleys and low hills bounded by the Pacific Ocean in the southwest quadrant with high mountains forming the remainder of the perimeter. The annual average temperatures throughout the SCAB vary from the low to middle 60s, measured in degrees Fahrenheit (F). Inland areas of the SCAB, including where the Project site is located, show more variability in annual minimum and maximum temperatures than coastal areas within the SCAB due to a decreased marine influence (Urban Crossroads, Inc., 2016a, p. 7)

The climate of the SCAB is characterized as semi-arid; however, the air near the land surface is quite moist on most days because of the presence of a marine layer. This shallow layer of sea air is an important modifier of SCAB climate. Humidity restricts visibility in the SCAB and the relative high humidity heightens the conversion of sulfur dioxide to sulfates. The marine layer provides an environment for that conversion process, especially during the spring and summer months. The annual average relative humidity within the SCAB is 71 percent along the coast and 59 percent inland. (Urban Crossroads, Inc., 2016a, p. 7)

More than 90 percent of the SCAB's rainfall occurs from November through April. The annual average rainfall varies from approximately nine inches in Riverside to fourteen inches in downtown Los Angeles. Monthly and yearly rainfall totals are extremely variable. Summer rainfall usually consists of widely scattered thunderstorms near the coast and slightly heavier shower activity in the eastern portion of the SCAB with frequency being higher near the coast. Due to its generally clear weather, about three-quarters of available sunshine is received in the SCAB. The remaining one-quarter is absorbed by clouds. The ultraviolet portion of this abundant radiation is a key factor in photochemical reactions. (Urban Crossroads, Inc., 2016a, p. 8)

Dominant airflow direction and speed are the driving mechanisms for transport and dispersion of air pollution. During the late autumn to early spring rainy season, the SCAB is subjected to wind flows associated with storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, locally termed "Santa Anas" each year. During the dry season, which coincides with the months of maximum photochemical smog concentrations, the wind flow is bimodal, typified by a daytime onshore sea breeze and a nighttime offshore drainage wind. Summer wind flows are created by the pressure differences between the relatively cold ocean and the unevenly heated and cooled land surfaces that modify the general northwesterly wind circulation over southern California. During the nighttime, heavy, cool air descends mountain slopes and flows through the mountain passes and canyons as it follows the lowering terrain toward the ocean. (Urban Crossroads, Inc., 2016a, p. 8)

In the SCAB, there are two distinct temperature inversion structures that control vertical mixing of air pollution. During the summer, warm high-pressure descending (subsiding) air is undercut by a shallow layer of cool marine air. The boundary between these two layers of air is a persistent marine

subsidence/inversion. This boundary prevents vertical mixing which effectively acts as an impervious lid to pollutants over the entire SCAB. The mixing height for the inversion structure is normally situated 1,000 to 1,500 feet above mean sea level. A second inversion-type forms in conjunction with the drainage of cool air off of the surrounding mountains at night followed by the seaward drift of this pool of cool air. The top of this layer forms a sharp boundary with the warmer air aloft and creates nocturnal radiation inversions. These inversions occur primarily in the winter, when nights are longer and onshore flow is weakest. They are typically only a few hundred feet above mean sea level. These inversions effectively trap pollutants, such as nitrogen oxides and carbon monoxide, as the pool of cool air drifts seaward. Winter is therefore a period of high levels of primary pollutants along the coastline. (Urban Crossroads, Inc., 2016a, p. 8)

C. *Air Quality Pollutants and Associated Human Health Effects*

The federal government and State of California have established maximum permissible concentrations for common air pollutants that may pose a risk to human health or would otherwise degrade air quality and adversely affect the environment. These regulated air pollutants are referred to as "criteria pollutants." An overview of the common criteria air pollutants in the SCAB, their sources, and associated effects to human health are summarized on the following pages (refer also to pages 9-13 of *Technical Appendix B1*).

- Carbon Monoxide (CO) is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO concentrations tend to be the highest in the winter during the morning, when little to no wind and surface-based inversions trap the pollutant at ground levels. CO is emitted directly from internal combustion engines; therefore, motor vehicles operating at slow speeds are the primary source of CO in the SCAB. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections. Inhaled CO has no direct toxic effect on the lungs, but exerts its effect on tissues by interfering with oxygen transport and competing with oxygen to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Therefore, conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. The most common symptoms associated with CO poisoning include headache, nausea, vomiting, dizziness, fatigue, and weakness. Individuals most at risk to the effects of CO include fetuses, patients with diseases involving heart and blood vessels, and patients with chronic oxygen deficiency.

- Sulfur Dioxide (SO_2) is a colorless, extremely irritating gas or liquid. SO_2 enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When SO_2 oxidizes in the atmosphere, it forms sulfates (SO_4). Collectively, these pollutants are referred to as sulfur oxides (SO_X). SO_2 is a respiratory irritant to people afflicted with asthma. After a few minutes exposure to low levels of SO_2, asthma sufferers can experience breathing difficulties, including airway constriction and reduction in breathing capacity. Although healthy individuals do not exhibit similar acute breathing difficulties

in response to SO_2 exposure at low levels, animal studies suggest that very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract.

- Nitrogen Oxides (NO_X) consist of nitric oxide (NO), nitrogen dioxide (NO_2) and nitrous oxide (N_2O) and are formed when nitrogen (N_2) combines with oxygen (O_2). Their lifespan in the atmosphere ranges from one to seven days for nitric oxide and nitrogen dioxide, to 170 years for nitrous oxide. Nitrogen oxides are typically created during combustion processes, and are major contributors to smog formation and acid deposition. NO_2 is a criteria air pollutant, and may result in numerous adverse health effects; it absorbs blue light, resulting in a brownish-red cast to the atmosphere, and reduced visibility. Of the seven types of nitrogen oxide compounds, NO_2 is the most abundant in the atmosphere. As ambient concentrations of NO_2 are related to traffic density, commuters in heavy traffic may be exposed to higher concentrations of NO_2 than those indicated by regional monitoring stations. Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposure to NO_2. Short-term exposure to NO_2 can result in resistance to air flow and airway contraction in healthy subjects. Exposure to NO_2 can result in larger decreases in lung functions in individuals with asthma or chronic obstructive pulmonary diseases (e.g., chronic bronchitis, emphysema), as these individuals are more susceptible to the effects of NO_X than healthy individuals.

- Ozone (O_3) is a highly reactive and unstable gas that is formed when volatile organic compounds (VOCs) and nitrogen oxides (NO_X), both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, warm temperatures, and light wind conditions are favorable to the formation of this pollutant. Short-term exposure (lasting for a few hours) to ozone at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. Individuals exercising outdoors, children, and people with preexisting lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible sub-groups for ozone effects. An increased risk for asthma has been found in children who participate in multiple sports and live in communities with high ozone levels.

- Particulate Matter less than 10 microns (PM_{10}) is a major air pollutant consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols. The size of the particles (10 microns or smaller, about 0.0004 inches or less) allows them to easily enter the lungs where they may be deposited, resulting in the adverse health effects discussed below for $PM_{2.5}$. PM_{10} also causes visibility reduction and is a criteria air pollutant.

- Particulate Matter less than 2.5 microns ($PM_{2.5}$) $PM_{2.5}$ is a similar air pollutant to PM_{10} consisting of tiny solid or liquid particles which are 2.5 microns or smaller (which is often referred to as fine particles). These particles are formed in the atmosphere from primary gaseous emissions that include sulfates formed from SO_2 release from power plants and industrial facilities and nitrates that are formed from NO_X release from power plants, automobiles and other types of combustion sources. The chemical composition of fine particles is highly dependent on location, time of year, and weather conditions. $PM_{2.5}$ is a criteria air pollutant. Elevated ambient concentrations of fine particulate matter (PM_{10} and $PM_{2.5}$) have been linked to an increase in respiratory infections, number, and severity of asthma attacks, and increased hospital admissions. Some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in life-span, and an increased mortality from lung cancer. Daily fluctuations in PM $_{2.5}$ concentration levels have also been related to hospital admissions for acute respiratory conditions in children, to a decrease in respiratory lung volumes in normal children, and to increased medication use in children and adults with asthma. Recent studies show lung function growth in children is reduced with long-term exposure to particulate matter. The elderly, people with pre-existing respiratory or cardiovascular disease, and children, appear to be more susceptible to the effects of high levels of PM_{10} and $PM_{2.5}$.

- Volatile Organic Compounds (VOCs) are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog through atmospheric photochemical reactions and/or may be toxic. Compounds of carbon (also known as organic compounds) have different levels of reactivity; that is, they do not react at the same speed or do not form ozone to the same extent when exposed to photochemical processes. VOCs often have an odor, including such common VOCs as gasoline, alcohol, and the solvents used in paints. Exceptions to the VOC designation include: carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. Odors generated by VOCs can irritate the eye, nose, and throat, which can reduce respiratory volume. In addition, studies have shown that the VOCs that cause odors can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance, by compromising the immune system. VOCs are a precursor to O_3, which is a criteria pollutant. The SCAQMD uses the terms VOC and ROG interchangeably.

- Reactive Organic Gases (ROGs) also are precursors in forming ozone and consist of compounds containing methane, ethane, propane, butane, and longer chain hydrocarbons, which are typically the result of some type of combustion/decomposition process. Smog is formed when ROG and nitrogen oxides react in the presence of sunlight. ROGs are precursors to O_3 which is a criteria pollutant. The SCAQMD uses the terms ROG and VOC interchangeably.

- Lead (Pb) is a heavy metal that is highly persistent in the environment. Historically, the primary source of lead in the air was emissions from vehicles burning leaded gasoline. As a result of the removal of lead from gasoline, there have been no violations at any of the SCAQMD's regular air quality monitoring stations since 1982. Currently, emissions of lead are largely limited to stationary sources such as lead smelters. Lead is a criteria air pollutant. Exposure to low levels of lead can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased lead levels are associated with increased blood pressure. Lead poisoning can cause anemia, lethargy, seizures, and death. Fetuses, infants, and children are more sensitive than others to the adverse effects of lead exposure.

D. Existing Air Quality

Monitored air quality of the criteria pollutants discussed above is evaluated in the context of ambient air quality standards. These standards are the levels of air quality that are considered safe with an adequate margin of safety, to protect the public health and welfare. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) currently in effect, as well as health effects of each pollutant regulated under these standards, are detailed in Table 4.3-1, *Ambient Air Quality Standards.* (Urban Crossroads, Inc., 2016a, p. 13)

The determination of whether a region's air quality is healthful or unhealthful is determined by comparing contaminant levels in ambient air samples to the State and federal standards presented in Table 4.3-1. The air quality in a region is considered to be in attainment by the State of California if the measured ambient air pollutant levels for ozone (O_3), carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), inhalable particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$) are not equaled or exceeded at any time in any consecutive three-year period; and the federal standards (other than O_3, PM_{10}, $PM_{2.5}$, and those based on annual averages or arithmetic mean) are not exceeded more than once per year. The O_3 standard is attained when the fourth highest eight-hour concentration 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 99 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. (Urban Crossroads, Inc., 2016a, p. 13)

1. Regional Air Quality

Criteria Area Pollutants

The federal government has designated seven (7) pollutants that are pervasive enough across the nation to warrant national health standards. Called "criteria pollutants," these are O_3, NO_2, PM_{10}, $PM_{2.5}$, CO, Pb, and SO_2. (SCAQMD, 2015a, p. 2) The SCAQMD monitors levels of various criteria air pollutants at 30 monitoring stations throughout its jurisdiction. In 2014, the most recent year for which detailed data was available at the time the NOP for this EIR was issued (August 2015), the federal and State ambient air quality standards (NAAQS and CAQQS) were exceeded on at least one or more days for O_3, PM_{10}, and $PM_{2.5}$. No areas of the SCAB exceeded federal or state standards for NO_2, SO_2, CO,

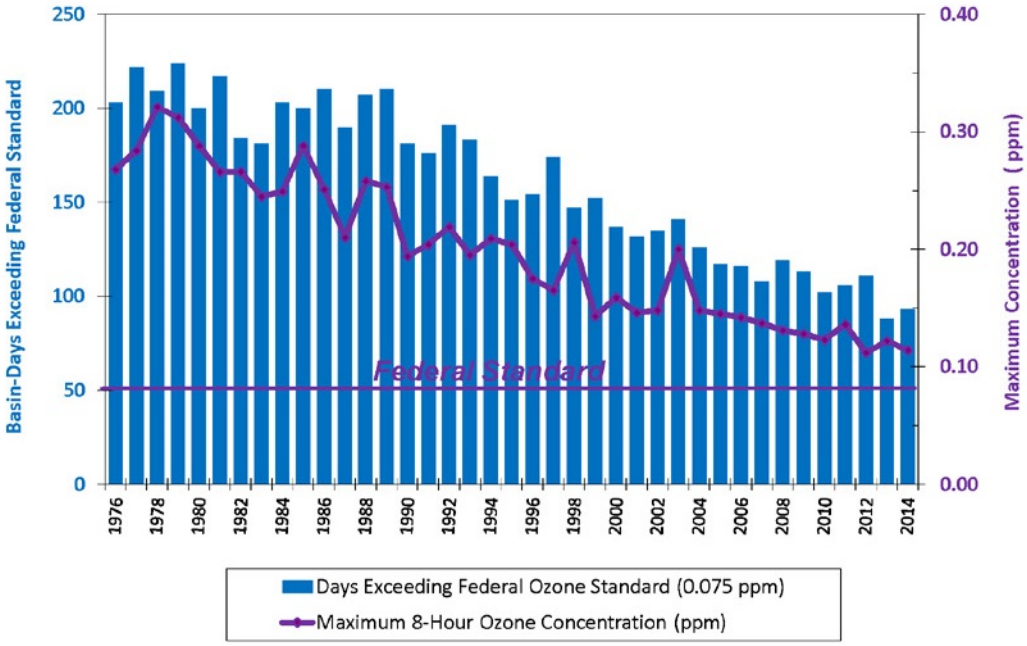
SO_X, and Pb. (Urban Crossroads, Inc., 2016a, p. 16) The attainment status for criteria pollutants within the SCAB is summarized in Table 4.3-2, *Attainment Status of Criteria Pollutants in the South Coast Air Quality Basin (SCAB)*.

2. South Coast Air Quality Basin- Air Quality History and Air Quality Trends

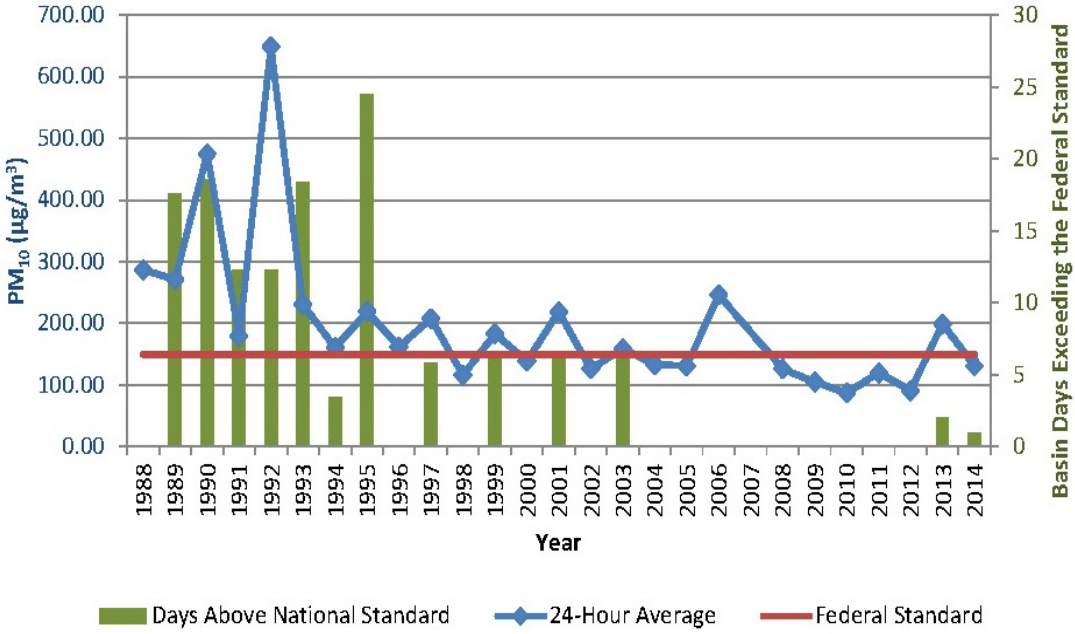
The SCAB has experienced unhealthful air since World War II and is one of the most unhealthful air basins in the United States; however, as a result of the region's air pollution control efforts over the last 66 years, air pollution concentrations in the SCAB have been reduced dramatically. For example, peak ozone levels have been cut by almost three-fourths since air monitoring began in the 1950s and population exposure was cut in half during the 1980s alone (SCAQMD, 2015a, p. 2). Thus, overall air quality within the SCAB is dramatically improving as the result of regulatory programs and is expected to continue to improve in the future as government regulations become more stringent.

The SCAQMD's *Final 2012 Air Quality Management Plan* states, "the remarkable historical improvement in air quality since the 1970's is the direct result of Southern California's comprehensive, multiyear strategy of reducing air pollution from all sources as outlined in its AQMPs." Ozone, NO_X, VOCs, and CO have been decreasing in the Basin since 1975 and are projected to continue to decrease through 2020. These decreases result primarily from motor vehicle controls and reductions in evaporative emissions. Although vehicle miles traveled in the Basin continue to increase, NO_X and VOC levels are decreasing because of the mandated controls on motor vehicles and the replacement of older polluting vehicles with lower-emitting vehicles. NOx emissions from electric utilities have also decreased due to use of cleaner fuels and renewable energy. Ozone contour maps show that the number of days exceeding the national 8-hour standard decreased between 1997 and 2007. The overall trends of PM_{10} and $PM_{2.5}$ in the air (not emissions) show an overall improvement since 1975. Direct emissions of PM_{10} have remained somewhat constant in the Basin and direct emissions of $PM_{2.5}$ have decreased slightly since 1975. Area wide sources (fugitive dust from roads, dust from construction and demolition, and other sources) contribute the greatest amount of direct particulate matter emissions. Ozone levels in the SCAB have decreased substantially over the last 30 years. Today, the maximum measured concentrations are approximately one-third of concentrations measured in the late 1970's. The graphs below show trend information as reported by the SCAQMD. (Urban Crossroads, Inc., 2016a, p. 20)

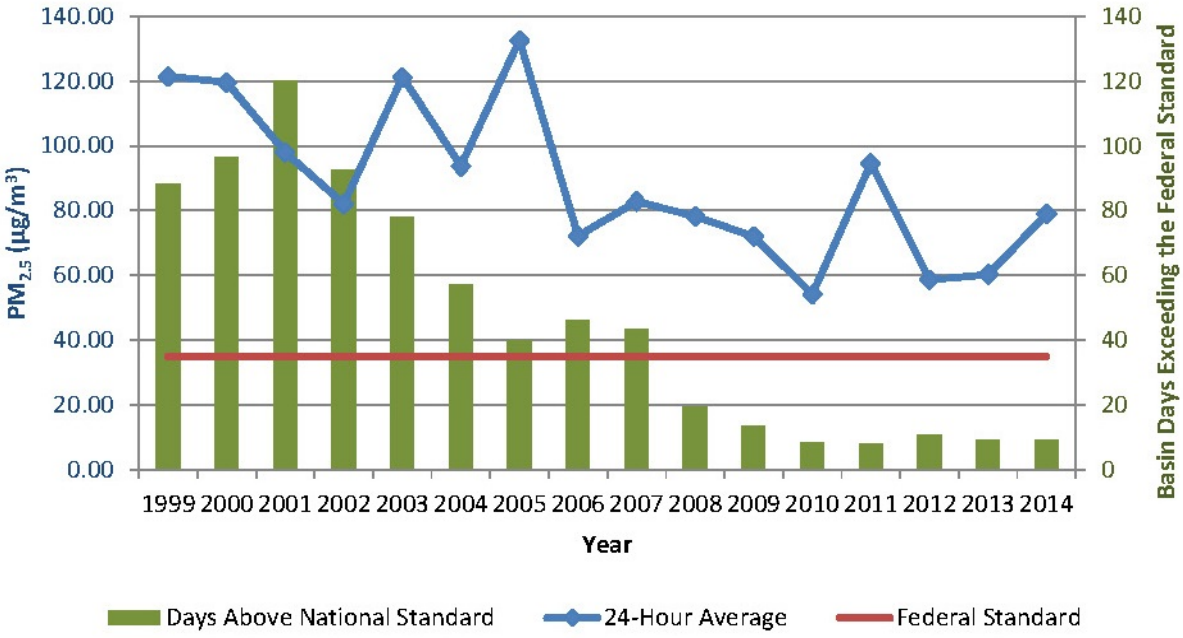
South Coast Air Basin Ozone Trend



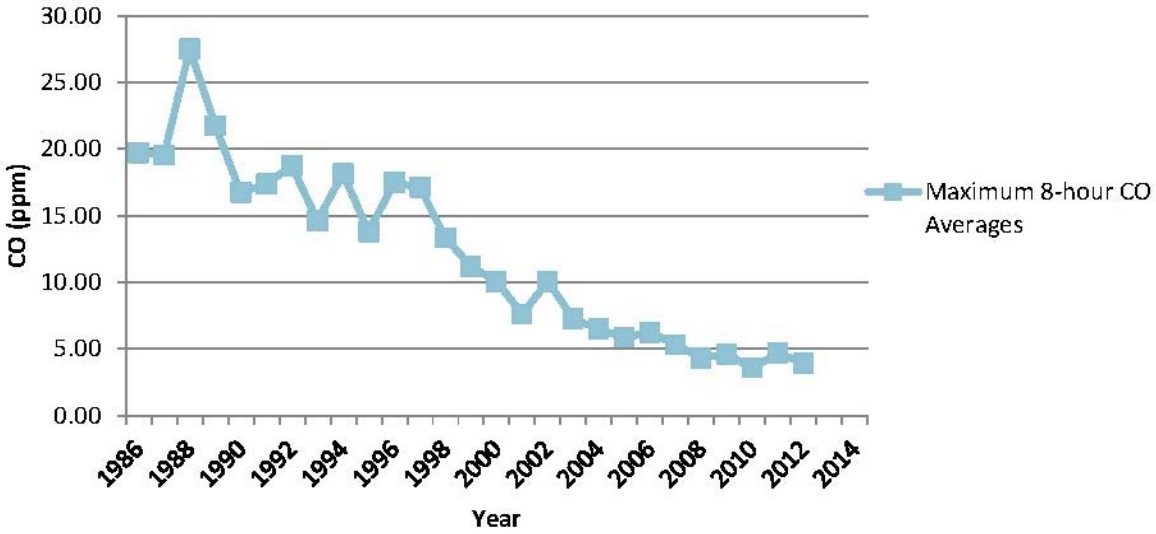
South Coast Air Basin PM_{10} Trend



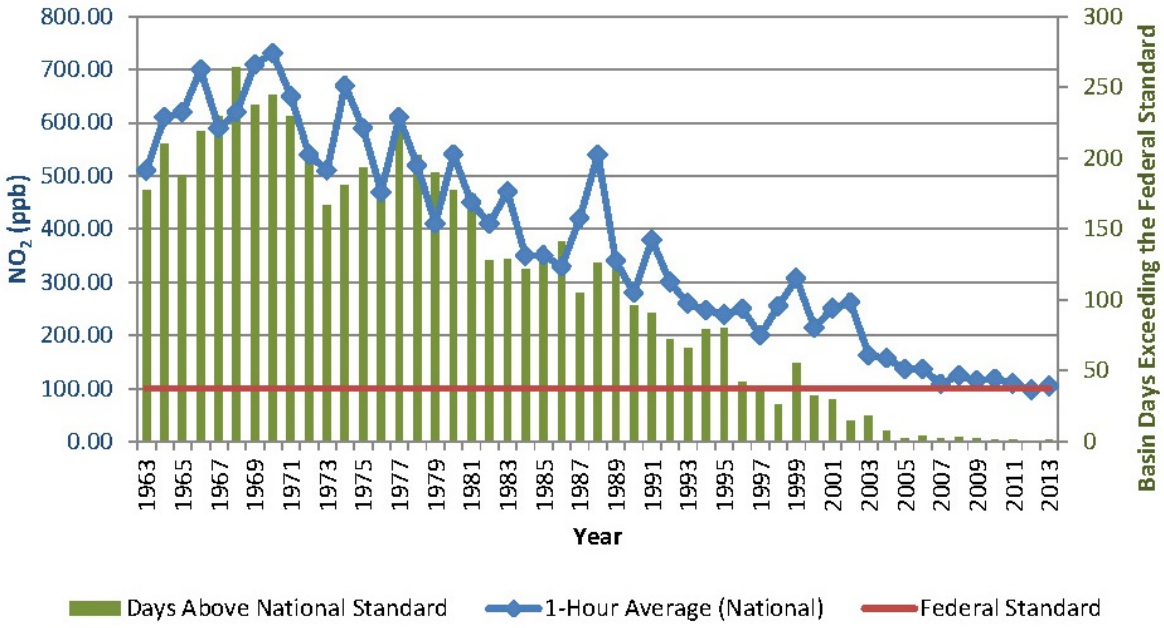
South Coast Air Basin $PM_{2.5}$ Trend



South Coast Air Basin Carbon Monoxide Trend



South Coast Air Basin Nitrogen Dioxide Trend



According to SCAQMD:

> *"Ozone levels have fallen by about three-quarters since peaks in the mid-1950s. Nitrogen dioxide, sulfur dioxide, and carbon monoxide levels have gone down from nonattainment to full attainment of federal health standards. In November 2008, U.S. EPA revised the lead standard from a 1.5 µg/m3 quarterly average to a 0.15 µg/m3 rolling 3-month average and added new near-source monitoring requirements. The Los Angeles County portion of the Basin has since been designated non-attainment for lead due to monitored concentrations near one facility. However, the most recent 2013 data shows that the Basin meets the current lead standard. U.S. EPA revised the 8-hour ozone standard, effective May 2008, from concentrations exceeding 0.08 ppm to concentrations exceeding 0.075 ppm. In 2013, the current federal 8-hour ozone standard was exceeded on 94 days, the second lowest number of exceedance days ever recorded, based on preliminary 2014 data. The federal ozone standard was exceeded on 88 days in 2013 and 111 days in 2012. The maximum observed ozone levels show some year-to-year variability, but have generally been decreasing over years. The highest 8-hour ozone level in the 2014 preliminary data was 0.114 ppm, compared to 0.122 ppm and 0.112 ppm in 2013 and 2012 respectively.*
>
> *In 2007, the U.S. EPA formally redesignated the Basin from nonattainment to full attainment of the federal health standard for carbon monoxide. Basin-wide maximum levels of carbon monoxide have been consistently measured at more than 30% below the federal standard since 2004. In 2010, US EPA established a new NO_2 1-hour standard at a level of 100 ppb (0.100 ppm) and SO_2 1-hour standard at a level of 75parts per billion (ppb) (0.075 ppm). In 2014,*

one site exceeded the 1-hour NO_2 standard in one day in the preliminary data; however, this does not jeopardize the attainment status.

In 2006, the U.S. EPA rescinded the annual federal standard for PM_{10} but retained the 24-hour standard. Ambient levels of PM_{10} in the Basin meet the federal 24-hour PM_{10} standard. U.S. EPA has redesignated the Basin as in attainment of the health based standard for PM_{10}. $PM_{2.5}$ levels have decreased dramatically in the Basin since the beginning of the decade; however design value concentrations are still slightly above the federal annual and 24-hour standards at one monitoring station. While air quality in the Basin continues to improve, the South Coast Air Basin remains one of the most unhealthful areas in the nation in terms of air quality." (SCAQMD, 2015a, pp. 3-4)

Continued improvement in air quality is expected to occur through the continued implementation of federal, State, and SCAQMD regulations such as California's low-sulfur diesel fuel programs and renewable electricity standards. California AB 1493, enacted on July 22, 2002, required the California Air Resources Board (CARB) to develop and adopt regulations that reduce passenger vehicle and light duty truck emissions. Although the regulation was stalled by automaker lawsuits and by the U.S. EPA denial of an implementation waiver to the State of California, in June 2009, the U.S. EPA granted the waiver request. The standards are phasing in during the 2009 through 2016 vehicle model years. The CARB Truck and Bus Regulation (amended, approved 2014) requires diesel-powered trucks and buses to be upgraded to reduce emissions. The regulation applies to nearly all privately- and federally-owned diesel-fueled trucks and buses with a gross vehicle weight rating (GVWR) greater than 14,000 pounds. By January 1, 2012, heavier trucks were required to be retrofitted with PM filters. By January 1, 2015, older trucks were required to be replaced. By January 1, 2023, nearly all trucks and buses must have 2010 model year engines or equivalent. (Urban Crossroads, Inc., 2016c)

The CARB and the Ports of Los Angeles and Long Beach have adopted several iterations of regulations for diesel trucks that are aimed at reducing diesel particulate matter (DPM). Specifically, the CARB Drayage Truck Regulation, the CARB statewide On-Road Truck and Bus Regulation, and the Ports of Los Angeles and Long Beach "Clean Truck Program (CTP)." Through this program, older more polluting trucks will be replaced with newer, cleaner trucks as a function of these regulatory requirements. (Urban Crossroads, Inc., 2016a, p. 27)

A more detailed account of regional air quality improvements is contained in Section 2.8 of the Project's Air Quality Impact Analysis (*Technical Appendix B1).*

3. Toxic Air Contaminants (TACs) Trends

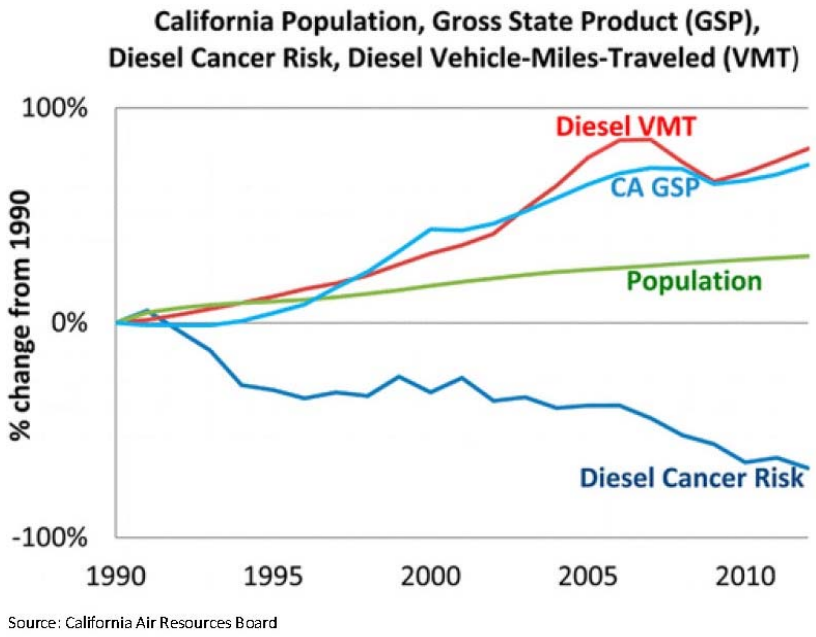
In 1984, as a result of public concern for exposure to airborne carcinogens, the CARB adopted regulations to reduce the amount of air toxic contaminant emissions resulting from mobile and area sources, such as cars, trucks, stationary products, and consumer products. The *Ambient and Emission Trends of Toxic Air Contaminants in California* journal article prepared for the CARB show that between 1990-2012, ambient concentration and emission trends for the seven TACs responsible for

most of the known cancer risk associated with airborne exposure in California have declined substantially. The decline in ambient concentration and emission trends of these TACs are a result of various regulations CARB has implemented to address cancer risks. (Urban Crossroads, Inc., 2016a, p. 24)

Mobile Source TACs

The CARB introduced two programs aimed at reducing mobile emissions for light and medium duty trucks through vehicle emissions controls and cleaner fuel. Since 1996, light-duty vehicles sold in California are equipped with California's second-generation On-Boards Diagnostic (OBD-II) system as a result of about half of total car emissions stemming from emissions control device malfunctions. CARB's phase II Reformulated Gasoline (RFG-2) regulation, adopted in 1996, also led to a reduction in mobile source emissions. Through such regulations, benzene levels declined 88% from 1990-2012 and 1, 3 Butadiene concentrations also declined 85% from 1990-2012 as a result of motor vehicle regulations. (Urban Crossroads, Inc., 2016a, p. 25)

In 2000, CARB's Diesel Reduction Plan (DRRP) recommended the replacement and retrofit of diesel-fueled engines and the use of ultra-low sulfur (less than 15 parts per million (ppm) diesel fuel. As a result of these measures, DPM concentrations have declined 68% even though the State's population has increased 31% and the amount of diesel vehicle miles traveled increased 81% as shown in the graph below. With implementation of these diesel-related control regulations, CARB expects a DPM decline of 71% for the time period of 2000-2020. (Urban Crossroads, Inc., 2016a, p. 25)



(Urban Crossroads, Inc., 2016a)

Stationary Source TACs

In 2007, CARBs dry cleaning regulation was amended to require phase out of perchloroethylene machines by 2023 which would further reduce emission to minimal levels. Hexavalent chromium emissions began to decline in 1988 and ARB-regulated regulations contributing to more than 97% emission reduction within four years. The various regulations include prohibiting the use of hexavalent chromium in cooling towers (1989), in motor vehicle and mobile equipment coatings (2001), and in thermal spraying operations (2005). By 2005, hexavalent chromium emissions were 99.97% less than in 1987, far exceeding expectations. In 2006, hexavalent chromium emissions were further reduced with the 2006 ARB regulation requiring add-on air pollution control devices and chemical fume suppressants. (Urban Crossroads, Inc., 2016a, p. 26)

Secondary TACs

Between 1996-2012 ambient concentrations of formaldehyde and acetaldehyde declined 22% and 21% respectively. The decline in these TACs is attributed from increasingly stringent motor vehicle exhaust emission standards, vehicle fleet turnover, fuel reformulation, and the switch from MTBE (formaldehyde precursor) to ethanol in gasoline. (Urban Crossroads, Inc., 2016a, p. 27)

As discussed above, ambient and emissions levels of TACs have reduced substantially from 1990-2012. The overall declining trend in TACs is expected to continue in California from implementation of toxic air controls. (Urban Crossroads, Inc., 2016a, p. 27)

4. Multiple Air Toxics Exposure Trends

In 1998, following a 10-year scientific assessment process, the CARB identified particulate matter from diesel-fueled engines as a toxic air contaminant. Subsequently, in 2000, the SCAQMD prepared a comprehensive urban toxic air pollution study, called MATES-II (Multiple Air Toxics Exposure Study in the South Coast Air Basin). The SCAQMD concluded that diesel particulate matter (DPM) accounted for more than 70 percent of the identified cancer risk. SCAQMD updated their urban toxic air pollution survey twice since 2000, with the 2008 (MATES-III) and 2014 updates (MATES-IV) showing a decrease in the average cancer risk within the SCAB as compared to MATES-II. (Urban Crossroads, Inc., 2016a, p. 27)

MATES-IV study represents the baseline health risk for a cumulative analysis. MATES IC calculated cancer risks based on monitoring data collected at ten fixed sites within the SCAB. None of the fixed monitoring sites are within the local area of the Project site. However, MATES-IV has extrapolated the excess cancer risk levels throughout the basin by modeling specific grids. MATES-IV modeling predicted an excess cancer risk of 538.56 in one million for the Project area. DPM is included in this cancer risk along with all other TAC sources. DPM accounts for 68% of the total risk shown in MATES-IV. (Urban Crossroads, Inc., 2016a, pp. 27-28)

5. Local Air Quality

Relative to the Project site, the nearest long-term air quality monitoring site for O_3 and PM_{10} is the SCAQMD Perris Monitoring Station (SRA 24), located approximately 6.0 miles south of the Project

site. Data for CO, NO_2 and $PM_{2.5}$ was obtained from the Metropolitan Riverside County 2 Monitoring Station (SRA 23), located approximately 12.0 miles northwest of the Project site. It is noted that SRA23 was utilized in lieu of SRA 24 only in instances where data was not available from SRA 24. (Urban Crossroads, Inc., 2016a, p. 16)

Table 4.3-3, *Project Area Air Quality Monitoring Summary 2012-2014*, provides a summary of ambient air quality conditions in the general vicinity of the Project site over the most recent three-year period for which air quality data is available, that being the years of 2012-2014. It is noted that data for SO_2 was omitted because the SCAB regularly attains the applicable NAAQS and CAAQS and few monitoring stations measure SO_2 concentrations. (Urban Crossroads, Inc., 2016a, p. 16)

E. Applicable Environmental Regulations

1. Federal Regulations

The EPA is responsible for setting and enforcing the NAAQS for O_3, CO, NO_X, SO_2, PM_{10}, and Pb. The U.S. EPA has jurisdiction over emissions sources that are under the authority of the federal government including aircraft, locomotives, and emissions sources outside state waters (Outer Continental Shelf). The U.S. EPA also establishes emission standards for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission requirements of the CARB. (Urban Crossroads, Inc., 2016a, p. 18)

The Federal Clean Air Act (CAA) was first enacted in 1955 and has been amended numerous times in subsequent years. The CAA establishes the federal air quality standards, the NAAQS, and specifies future dates for achieving compliance. The CAA also mandates that states submit and implement State Implementation Plans (SIPs) for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards will be met. (Urban Crossroads, Inc., 2016a, p. 18)

The 1990 amendments to the CAA that identify specific emission reduction goals for areas not meeting the NAAQS, require a demonstration of reasonable further progress toward attainment and incorporate additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA most directly applicable to the development of the Project site include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions). Title I provisions were established with the goal of attaining the NAAQS for the following criteria pollutants: O_3, NO_2, SO_2, PM_{10}, CO, $PM_{2.5}$, and Pb. The NAAQS were amended in July 1997 to include an additional standard for O_3 and to adopt a NAAQS for $PM_{2.5}$. Table 4.3-1 provides the NAAQS within the SCAB. (Urban Crossroads, Inc., 2016a, p. 18/)

Mobile source emissions are regulated in accordance with CAA Title II provisions. These provisions require the use of cleaner burning gasoline and other cleaner burning fuels such as methanol and natural gas. Automobile manufacturers are also required to reduce tailpipe emissions of hydrocarbons and NO_X, which is a collective term that includes all forms of nitrogen oxides (NO, NO_2, NO_3) which are emitted as byproducts of the combustion process. (Urban Crossroads, Inc., 2016a, p. 18)

2. State Regulations

The California Air Resources Board (CARB), which became part of the California EPA in 1991, is responsible for ensuring implementation of the CAA (AB 2595), responding to the federal CAA, and for regulating emissions from consumer products and motor vehicles. The California CAA mandates achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources in order to attain the state ambient air quality standards by the earliest practical date. The CARB established the CAAQS for all pollutants for which the federal government has NAAQS and, in addition, established standards for sulfates, visibility, hydrogen sulfide, and vinyl chloride. At this time, however, hydrogen sulfide and vinyl chloride are not measured at any monitoring stations in the SCAB because they are not considered to be a regional air quality problem. Generally, the CAAQS are more stringent than the NAAQS. (Urban Crossroads, Inc., 2016a, p. 18)

Local air quality management districts, such as the SCAQMD, regulate air emissions from commercial and light industrial facilities. All air pollution districts have been formally designated as attainment or non-attainment for each CAQQS. (Urban Crossroads, Inc., 2016a, p. 19)

Non-attainment areas are required to prepare air quality management plans that include specified emission reduction strategies in an effort to meet clean air goals. However, air basins may use alternative emission reduction strategy that achieves a reduction of less than 5 percent per year under certain circumstances. (Urban Crossroads, Inc., 2016a, p. 19)

3. Air Quality Management Planning

Currently, the NAAQS and CAAQS are exceeded in most parts of the SCAB. The NAAQS are exceeded for O_3 and $PM_{2.5}$ and the CAQQS are exceeded for O_3, PM_{10}, and $PM_{2.5}$. In response, the SCAQMD has adopted a series of air quality management plans (AQMPs) to meet the state and federal ambient air quality standards. AQMPs are updated regularly in order to more effectively reduce emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution on the economy. (Urban Crossroads, Inc., 2016a, p. 19)

Each version of the plan is an update of the previous plan and has a 20-year horizon with a revised baseline. The most recent AQMP was adopted by the AQMD Governing Board on December 7, 2012. The *Final 2012 Air Quality Management Plan* published by the Southern California Association of Governments (SCAG) incorporates the latest scientific and technological information and planning assumptions, including the *2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)* and updated emission inventory methodologies for various source categories. The *2012 AQMP* is based on assumptions provided by the 2011 Emission FACtor model (EMFAC2011) developed by CARB for motor vehicle information and assumptions provided by SCAG for demographics. The air quality levels projected in the *Final 2012 Air Quality Management Plan* are based on the assumption that development associated with general plans, specific plans, residential projects, and wastewater facilities will be constructed in accordance with population growth projections identified by SCAG in its *2012 RTP/SCS*. The *Final 2012 Air Quality Management Plan*

also assumes that such development projects will implement strategies to reduce emissions generated during the construction and operational phases of development. (Urban Crossroads, Inc., 2016a, p. 49)

4.3.2 METHODOLOGY FOR ESTIMATING PROJECT-RELATED AIR QUALITY IMPACTS

On October 2, 2013, the SCAQMD released the latest version of the California Emissions Estimator Model™ (CalEEMod™) v2013.2.2, which was the most recent model available at the time the NOP for this EIR was released for public review (August 2015) and at the time this EIR was prepared. Urban Crossroads, Inc. used this model to calculate Project-construction-source and Project- operational-source criteria pollutants NO_X, VOC, PM_{10}, $PM_{2.5}$, SO_X, and CO and greenhouse gas (GHG) emissions. (Urban Crossroads, Inc., 2016a, p. 30)

A. Methodology for Calculating Project Construction Emissions

Construction-related emissions would be expected from the following construction activities:

- Demolition
- Grading/Blasting/Crushing
- Underground Utilities
- Building Construction
- Landscape
- Paving and Site Finishes
- Architectural Finishes

The assumptions for each phase of Project construction were input by Urban Crossroads, Inc. into the CalEEMod model using anticipated construction characteristics (e.g., construction activities, construction equipment list, and anticipated construction schedule provided by the Project Applicant, and an estimated opening year of 2017). Based on phasing information provided by the Project Applicant, no overlap of construction phases would occur. (Urban Crossroads, Inc., 2016a, p. 31)

Dust is typically a major concern during rough grading activities. Because such emissions are not amenable to collection and discharge through a controlled source, they are called "fugitive emissions." Fugitive dust emissions rates vary as a function of many parameters (soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance or excavation, etc.). Urban Crossroads, Inc. used the CalEEMod to calculate fugitive dust emissions resulting from the construction phase of activity. The calculations assumed the proposed Project would require approximately 2,500 s.f. of demolition. Haul trips associated with the demolition phase is based on CalEEMod model defaults. (Urban Crossroads, Inc., 2016a, p. 31)

A list of the construction equipment and anticipated construction schedule assumed in the analysis of Project-related construction emissions is provided in EIR Section 3.0, *Project Description*. Refer to Section 3.4 *Construction Emissions* of the Air Quality Impact Analysis (*Technical Appendix B1*) for more detail on the methodology utilized to estimate Project-related construction emissions. Refer to

Appendix 3.2 of T*echnical Appendix B1* for specific detailed modeling inputs/outputs used in the analysis.

1. Construction Localized Pollutant Emissions

Localized emissions associated with Project-related construction activities were estimated and evaluated in accordance with SCAQMD's *Final Localized Significance Threshold Methodology*. The SCAQMD has established that impacts to air quality are significant if there is a potential to contribute or cause localized exceedances of the federal and/or state ambient air quality standards (NAAQS/CAAQS). Collectively these are referred to as Localized Significance Thresholds (LSTs). (Urban Crossroads, Inc., 2016a, p. 41)

SRA 24 was used as the baseline LST for ambient air quality because it is the closest monitoring station to the Project site for which air quality data is available. LSTs apply to CO, NO_2, PM_{10}, and $PM_{2.5}$. In order to determine the appropriate methodology for determining localized impacts that could occur as a result of Project-construction, the following process was undertaken by Urban Crossroads, Inc.:

- The CalEEMod model is utilized to determine the maximum daily on-site emissions that will occur during construction activity.

- The SCAQMD's Fact Sheet for Applying CalEEMod to LSTs is used to determine the maximum site acreage that is actively disturbed based on the construction equipment fleet and equipment hours as estimated in CalEEMod.

- If the total acreage disturbed is less than or equal to five acres per day, then the SCAQMD's screening look-up tables are utilized to determine if a Project has the potential to result in a significant impact (the SCAQMD recommends that Projects exceeding the screening look-up tables undergo dispersion modeling to determine actual impacts). The look-up tables establish a maximum daily emissions threshold in pounds per day that can be compared to CalEEMod outputs.

- For projects that exceed 5 acres, the 5-acre LST look-up values can be used as a screening tool to determine which pollutants require detailed analysis. This approach is conservative as it assumes that all on-site emissions would occur within a 5-acre area and would over-predict potential localized impacts (i.e., more pollutant emissions occurring within a smaller area and within closer proximity to potential sensitive receptors). If the project exceeds the LST look-up values, then the SCAQMD recommends that project specific air quality modeling be performed. (Urban Crossroads, Inc., 2016a, pp. 41-42)

Based on the SCAQMD's LST look-up tables, the proposed Project could actively disturb approximately 11.0 acres per day during the grading phase of construction. As such, dispersion modeling is utilized to calculate emissions for LSTs for peak grading activity which represents a

conservative "worst-case" analytical scenario for purposes of construction LSTs. SCAQMDs *Final Localized Significance Threshold Methodology* clearly states that "off-site mobile emissions from the Project should not be included in the emissions compared to LSTs". Therefore, for purposes of the construction LST analysis, only emissions included in the CalEEMod on-site emissions outputs were considered. (Urban Crossroads, Inc., 2016a, pp. 41-43)

In order to calculate localized pollutant concentrations resulting from Project construction, the SCAQMD-approved AERMOD dispersion model was utilized. As discussed above, construction activity is anticipated to disturb a maximum area of approximately 11.0 acres on any given day (during peak rough grading activity), thus it was conservatively estimated that emissions would be concentrated over this area. It is noted that in order to model worst-case conditions, the highest daily peak emissions resulting from grading activity were utilized. In order to model fugitive dust emissions (PM_{10} and $PM_{2.5}$) resulting from Project grading activity, an area source of 11.0 acres was utilized. Per SCAQMD LST methodology, a ground level release height of 1.0 meter (approximately 3.28 feet) initial vertical dimension were utilized in order to account for vertical spread of emissions. In order to account for equipment exhaust emissions of PM_{10}, $PM_{2.5}$, and CO, a total of 25 volumes sources measuring 45 meters by 45 meters were spread over an area of approximately 11.0 acres. In order to represent equipment exhaust emissions, a release height of 5.0 meters was utilized, which is consistent with SCAQMD's LST guidance. (Urban Crossroads, Inc., 2016a, p. 43)

The nearest sensitive receptor land uses (defined as a place where an individual who might have respiratory difficulties could remain for 24-hours) are the residential structures located approximately 191 feet (58 meters) south of the Project site boundary. For purposes of analysis performed for the Air Quality Impact Analysis (*Technical Appendix B1*) and presented herein, a 50 meter sensitive receptor distance is utilized to determine LSTs for PM_{10} and $PM_{2.5}$. (Urban Crossroads, Inc., 2016a, pp. 43-44)

In order to account for meteorological conditions at the Project site, as mentioned above, data from the Perris monitoring station was utilized, as this is the nearest station to the Project site for which meteorological data is available. Additionally, per SCAQMD's LST methodology, a receptor height of 2.0 meters and regulatory default options, and the urban dispersion coefficient were utilized. (Urban Crossroads, Inc., 2016a, p. 44)

B. Methodology for Calculating Project Operational Emissions

1. Operational Regional Pollutant Emissions

Operational activities associated with the proposed Project would result in emissions of VOC, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$. Operational emissions would be expected from the following primary sources (Urban Crossroads, Inc., 2016a, p. 34):

- Area Source Emissions
- Energy Source Emissions
- Mobile Source Emissions

- On-Site Equipment Emissions

Architectural Coatings

Over a period of time, the buildings that are part of this Project will be subject to emissions resulting from the evaporation of solvents contained in paints, varnishes, primers, and other surface coatings as part of Project maintenance. The emissions associated with architectural coatings were calculated using the CalEEMod model. (Urban Crossroads, Inc., 2016a, p. 35)

Consumer Products

Consumer products include, but are not limited to detergents, cleaning compounds, polishes, personal care products, and lawn and garden products. Many of these products contain organic compounds which when released in the atmosphere can react to form ozone and other photochemically reactive pollutants. The emissions associated with use of consumer products were calculated based on defaults provided within the CalEEMod model. (Urban Crossroads, Inc., 2016a, p. 35)

Landscape Maintenance Equipment

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shedders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. The emissions associated with landscape maintenance equipment were calculated based on assumptions provided in the CalEEMod model. (Urban Crossroads, Inc., 2016a, p. 35)

Combustion Emissions Associated with Natural Gas and Electricity

Electricity and natural gas are used by almost every project. Criteria pollutant emissions are emitted through the generation of electricity and consumption of natural gas. However, because electrical generating facilities for the Project area are located either outside the region (state) or offset through the use of pollution credits (RECLAIM) for generation within the SCAB, criteria pollutant emissions from offsite generation of electricity is generally excluded from the evaluation of significance and only natural gas use is considered. The emissions associated with natural gas use were calculated using the CalEEMod model. (Urban Crossroads, Inc., 2016a, p. 35)

On-Site Equipment Emissions

It is common for buildings with loading docks to use cargo handling equipment to move empty containers and empty chassis around on the property. The most common type of cargo handling equipment is the yard truck which is designed for moving cargo containers. Yard trucks are also known as yard goats, utility tractors (UTRs), hustlers, yard hostlers, and yard tractors. Yard trucks have a horsepower (hp) range of approximately 175 hp to 200 hp. Based on the latest available information from SCAQMD; high-cube warehouse projects typically have 3.6 yard trucks per one million square feet of building space. For the air quality impact analysis of the proposed Project, Urban Crossroads, Inc. analyzed the use of five (5) yard tractors operating at 4 hours a day for 365 days of the year interior to the buildings. In addition, five (5) 89 hp yard forklifts operating at 4 hours a day for 365 days of

the year were analyzed. For purposes of the air quality impact analysis (*Technical Appendix B1*), forklifts were not included in Urban Crossroad's health risk calculations since there is no diesel exhaust associated with the forklifts as they are assumed to be non-diesel consistent with industry standards. (Urban Crossroads, Inc., 2016a, pp. 38-39)

As part of the Project's design, all on-site outdoor cargo handling equipment (CHE) (i.e., yard trucks, hostlers, yard goats, pallet jacks, forklifts, and other on-site equipment) would be powered by diesel fueled engines that comply with CARB/U.S. EPA Tier IC Engine standards for off-road vehicles or better (defined as less than or equal to 0.015 g/bhp-hr. for PM_{10}) and all on-site indoor forklifts shall be powered by electricity, compressed gas, or propane. Because the Project's building occupants are currently unknown, it is unknown and speculative whether or not the Project would consist of additional on-site sources, such as boilers, and/or generators. (Urban Crossroads, Inc., 2016a, p. 39)

Vehicles

Air pollutant emissions would result from the operation of motor vehicles by building occupants, visitors, employees, and customers. Project-related vehicular air pollutant emissions are dependent on both overall daily vehicle trip generation and the effect of the Project on peak hour traffic volumes and traffic operations. Project-related operational air quality impacts derive primarily from mobile sources (vehicles). Information related to the Project's daily vehicle trip generation and vehicle trip characteristics was obtained from the Project's Traffic Impact Analysis contained as *Technical Appendix J1* to this EIR. (Urban Crossroads, Inc., 2016a, p. 35)

The trip generation rates, as derived from the Project's traffic impact analysis (*Technical Appendix J1*) are based upon data collected by the ITE for high-cube warehouse/distribution center (ITE Land Use Code 152) in their published Trip Generation manual, 9th Edition, 2012. (Urban Crossroads, Inc., 2016a, p. 36)

The ITE Trip Generation manual includes data regarding the types of vehicles that are generated (passenger cars and trucks), but provides no guidance on vehicle mix (different sizes of trucks). While trucks, as a percentage of total traffic was based on the ITE Trip Generation Manual, data regarding the vehicle mix was obtained from the SCAQMD's draft "Warehouse Truck Trip Study." The SCAQMD is currently recommending the use of trip rates from the ITE Trip Generation manual and the use of vehicle mix data from the SCAQMD's draft Warehouse Truck Trip Study, which calculates truck mix by axle-type, for warehouse and distribution projects. (SCAQMD, 2014). This recommended procedure was utilized for the purposes of the analysis herein and in *Technical Appendix B1*. (Urban Crossroads, Inc., 2016a, p. 36)

A limitation inherent in calculating the projected vehicle emissions associated with any project is related to the estimation of trip length and vehicle miles traveled (VMT). VMT for a given project is calculated by the total number of vehicle trips to/from the Project multiplied by average trip length. This method of estimating VMT for use in calculating vehicle emissions likely results in the over-estimation and double-counting of emissions because for business park warehouse buildings, such as

those proposed by the Project, the land use is likely to attract (divert) existing vehicle trips that are already on the circulation system as opposed to generating new trips. In this regard, the Project would, to a large extent, redistribute existing mobile-source emissions rather than generate additional emissions within the Basin. As such, the estimation of the Project's vehicular-source emissions is likely overstated in that no credit for, or reduction in, emissions is assumed based on diversion of existing trips. (Urban Crossroads, Inc., 2016a, pp. 36-37)

The CalEEMod™ and the URBan EMISsions models use a default trip length of approximately 12.6 miles. However, 12.6 miles is not representative of the actual average trip length for large buildings with loading docks. SCAQMD asserts that most of the heavy-duty trucks would be hauling consumer goods, often from the Ports of Long Beach and Los Angeles (POLA and POLB) and/or to other long-haul destinations. For this reason, SCAQMD generally recommends the use of a 40-mile one-way trip length. (Urban Crossroads, Inc., 2016a, p. 37)

In comparison, SCAG's most recent (2008) transportation validation for the 2003 Regional Model indicates the average internal truck trip length for the SCAG region is 5.92 miles for Light Duty Trucks, 13.06 miles for Medium Duty Trucks, and 24.11 miles for Heavy Duty Trucks. (Urban Crossroads, Inc., 2016a, p. 37)

Trip lengths and VMT estimates employed in the air quality impact analysis (*Technical Appendix B1*) generate vehicular-source emissions that would represent a maximum impact scenario. To maintain analytic consistency and establish the maximum impact scenario noted above, the following approach was utilized by Urban Crossroads, Inc. in calculating emissions associated with vehicles accessing the Project: For passenger car trips, the CalEEMod default for a one-way trip length of 16.6 miles was assumed. For heavy duty trucks, an average trip length was derived from distances from the Project site to the far edges of the SCAB as follows. It is appropriate to stop the VMT calculation at the boundary of the SCAB because any activity beyond that boundary would be speculative. This approach is also consistent with professional industry practice. (Urban Crossroads, Inc., 2016a, pp. 37-38)

- Project site to the Port of Los Angeles/Long Beach: 80 miles;
- Project site to East on State Route 60: 30 miles;
- Project site to San Diego County line: 60 miles;
- Project site to Inland Empire: 50 miles;
- Project site to Perris destinations: 10 miles;
- Project site to Moreno Valley destinations: 10 miles;

Based on reasonably foreseeable directional truck travel for the Project as determined by the Riverside County Transportation Department and documented in the Project's Traffic Impact Analysis Scoping Agreement, it is assumed that 50% of all truck delivery trips will travel to and from the Project site and the Port of Los Angeles/Long Beach, 10% will go east on State Route 60 (SR-60), 20% will go to San Diego County, 10% will go to the Inland Empire, 5% will go to Perris destinations and 5% will go to

Moreno Valley destinations, resulting in an average truck trip length of 61 miles. (Urban Crossroads, Inc., 2016a, p. 38)

Two separate model runs were utilized. The first model run analyzed passenger car emissions, which incorporated a default trip length of 16.6 miles for passenger cars and a fleet mix of 100% Light-Duty-Auto vehicles (LDA). The second model run analyzed truck emissions, which incorporated an average truck trip length of 61 miles and a fleet mix of 22.03% Light-Heavy-Duty Trucks (LHD), 17.66% Medium-Heavy-Duty Trucks (MHD), and 60.31% Heavy-Duty Trucks (HHD). Detailed emission calculations are provided in Appendix 3.2 of *Technical Appendix B1*. (Urban Crossroads, Inc., 2016a, p. 38)

Fugitive Dust from Vehicular Travel

Vehicles traveling on paved roads would be a source of fugitive emissions due to the generation of road dust inclusive of tire wear particulates. The emissions estimates for travel on paved roads were calculated using the CalEEMod model. (Urban Crossroads, Inc., 2016a, p. 38)

2. Operational Localized Pollutant Emissions

For operational LSTs, on-site passenger car and truck travel emissions were modeled in AERMOD using emission factors for CO, NO_2, PM_{10}, and $PM_{2.5}$ generated with the 2014 version of the Emission FACtor model (EMFAC) developed by the ARB. EMFAC 2014 is a mathematical model that was developed to calculate emission rates from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the ARB to estimate changes in future emissions from on-road mobile sources. Outputs from the model runs for operational LSTs are provided in Appendix 3.3 of *Technical Appendix B1*. For this Project, criteria pollutant emission factors were generated by running EMFAC 2014 in EMFAC Mode for vehicles in the SCAQMD within Riverside County. The EMFAC Mode generates emission factors in terms of grams of pollutant emitted per vehicle activity and can calculate a matrix of emission factors at specific values of temperature, relative humidity, and vehicle speed. The model was run for speeds traveled in the vicinity of the Project. The vehicle travel speeds for each segment modeled are summarized below.

- Idling – assumed 15 minutes of idling per two-way vehicle trips for passenger cars and trucks
- 5 miles per hour – on-site vehicle movement including driving and maneuvering

Additionally, on-site equipment (cargo handling equipment and forklifts) were modeled using area sources encompassing the Project's loading docks adjacent to the Project's building boundaries. (Urban Crossroads, Inc., 2016a, p. 45)

3. Diesel Particulate Emissions

Vehicle DPM emissions were calculated using emission factors for PM_{10} generated with the 2014 version of the EMFAC developed by the CARB. Refer to Section 2.2 *Emission Estimation*, of the

Project's Mobile Source Health Risk Assessment (*Technical Appendix B2*) for a detailed description of the model inputs and equations used in the estimation of the Project-related DPM emissions.

The potential health effects of Project-related DPM emissions were quantified in accordance with the guidelines in the SCAQMD's *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis.* Pursuant to SCAQMD's recommendations, emissions were quantified using the U.S. EPA's AERMOD model. Refer to Section 2.3, *Exposure Quantification*, of the Mobile Health Risk Assessment (*Technical Appendix B2*) for a detailed description of the model inputs and equations used in the calculation of average particulate concentrations associated with operations at the Project site. (Urban Crossroads, Inc., 2016b, p. 13)

Excessive health risks associated with exposure to DPM emissions are defined in terms of the probability of developing cancer or adverse, chronic non-cancer health effects as a result of exposure to DPM emissions at a given concentration. The cancer and non-cancer risk probabilities are determined through a series of equations to calculate unit risk factor, cancer potency factor, and chronic daily intake. Excess cancer risks are estimated as the upper bound incremental probability that an individual will develop cancer over a lifetime as a direct result of exposure to potential carcinogens over a specified exposure duration. A risk level of 1 in 1,000,000 implies a likelihood that up to one person, out of 1,000,000 equally exposed people, would contract cancer if exposed continuously (24 hours per day, 365 days a year) to the levels of toxic air contaminants over a specified duration of time. This risk would be an excess cancer risk that is in addition to any cancer risk borne by a person not exposed to these air toxics. Based on the SCAQMD guidance document noted earlier, this analysis applies a risk threshold of 10 in 1,000,000 as the incremental level of cancer risk considered to be significant. The equations and input factors utilized in the Project analysis were obtained from the California EPA, Office of Environmental Health Hazard (Urban Crossroads, Inc., 2016b, p. 18). Refer to Section 2.4, *Carcinogenic Chemical Risk*, of the Project's Mobile Source Health Risk Assessment (*Technical Appendix B2*) for a detailed description of the variable inputs and equations used in the estimation of receptor population health risks associated with Project operations.

Potential receptor population health risks were calculated for the maximally exposed residential receptor (MEIR), the maximally exposed individual worker (MEIW), and the maximally exposed school child (MEISC). The residential land use with the greatest potential exposure to Project DPM source emissions is located approximately 191 feet south of the Project site. The worker receptor land use with the greatest potential exposure to Project DPM source emissions is located to the east, immediately adjacent to the Project site. The school site land use with the greatest potential exposure to Project DPM is located at Thomas Rivera Middle School located approximately 1.0 mile (5,280 feet) southwest of the Project site. (Urban Crossroads, Inc., 2016b, pp. 20-21)

4.3.3 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to air quality if the Project or any Project-related component would:

a) Conflict with or obstruct implementation of the applicable air quality plan;

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation;

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors;

d) Expose sensitive receptors which are located within 1.0 mile of the project site to project substantial point source emissions;

e) Involve the construction of a sensitive receptor located within one mile of an existing substantial point source emitter;

f) Create objectionable odors affecting a substantial number of people.

Within the context of the above threshold considerations, emissions generated by a development project would be significant under Thresholds (a) and (b) if emissions are projected to exceed the regional and localized thresholds established by the SCAQMD for criteria pollutants as shown on Table 4.3-4, *Maximum Daily Regional Emissions Thresholds.* Based on the SCAQMD's CEQA Air Quality Significance Thresholds (March 2015) indicate that any projects in the SCAB with daily or localized emissions that exceed any of the indicated thresholds shall be considered as having an individually and cumulatively significant air quality impact. (Urban Crossroads, Inc., 2016a, p. 29)

The significance of localized emissions impacts depends on whether ambient levels in the vicinity of any given project are above or below State standards. In the case of CO and NO_2, if ambient levels are below the standards, a project is considered to have a significant impact if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a state or federal standard, then project emissions are considered significant if they increase ambient concentrations by a measurable amount. This would apply to PM_{10} and $PM_{2.5}$ both of which are non-attainment pollutants and have thresholds that have an allowable measurable change of 10.4 µg/m^3 for construction-source and 2.5 µg/m3 for operational-source emissions. (Urban Crossroads, Inc., 2016a, pp. 41-42)

The SCAQMD has established that impacts to air quality are significant if there is a potential to contribute or cause localized exceedances of the Federal and/or State Ambient Air Quality Standards. Applicable localized thresholds as follows:

- California State 1-hour CO standard of 20.0 ppm;
- California State 8-hour CO standard of 9.0 ppm;
- California State 1-hour NO_2 standard of 0.18 ppm;
- California State Annual NO_2 standard of 0.03 ppm;
- SCAQMD 24-hour operational PM_{10} LST of 2.5 µg/m3;
- SCAQMD Annual-operational PM_{10} LST of 1.0 µg/m3;

- SCAQMD 24-hour operational $PM_{2.5}$ LST of 2.5 µg/m3

Pursuant to SCAQMD guidance, any development project in the SCAB with daily emissions that would exceed any of the indicated thresholds would be considered to have a significant impact on both a direct (individual) and cumulatively considerable basis.

The SCAQMD published a report titled *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution.* The report provides direction on how to address cumulative impacts from air pollution. In the *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution*, the AQMD states in Appendix D, *Cumulative Impact Analysis Requirements Pursuant to CEQA:*

> *"…the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR. The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for toxic air contaminant (TAC) emissions. The project specific (project increment) significance threshold is HI ≥ 1.0 while the cumulative (facility-wide) is HI ≥ 3.0. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts.*
>
> *Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant."* (SCAQMD, 2003)

Given this direction from the SCAQMD, the proposed Project evaluated in this EIR would result in a significant impact under Threshold (d) if it would emit toxic air contaminants, like DPM, to such a degree that it would expose sensitive receptor populations to an incremental cancer risk of greater than 10 in 1,000,000.

The SCAQMD has also established non-carcinogenic risk parameters. Non-carcinogenic risks are quantified by calculating a "hazard index (HI)" expressed as the ratio between the ambient pollutant concentration and its toxicity or Reference Exposure Level (REL). An REL is a concentration at or below which health effects are not likely to occur. A HI less than one (1.0) means that adverse health effects are not expected. (Urban Crossroads, Inc., 2016b, p. 3) Thus, non-carcinogenic exposure of less than 1.0 are considered less-than-significant on a direct and cumulatively considerable basis under Threshold (d).

4.3.4 IMPACT ANALYSIS

Threshold a) Would the Project conflict with or obstruct implementation of the applicable air quality plan?

The SCAQMD *Final 2012 Air Quality Management Plan* estimates long-term air quality conditions for the SCAB. Although the SCAQMD approved the 2016 AQMP in March 2017, it was not approved at the time the NOP for this EIR was released for public review (August 2015). Thus, the 2012 AQMP is the applicable air quality plan for analysis herein. The criteria for determining consistency with either the 2012 AQMP or the 2016 AQMP (evaluated below) are the same, based on the SCAQMD's *CEQA Air Quality Handbook*. The air quality conditions presented in the *Final 2012 AQMP* are based in part on the growth forecasts identified by SCAG in its *2012-2035 RTP/SCS. The RTP/SCS* assumes that development in the various incorporated and unincorporated areas within the SCAB will occur in accordance with the adopted general plans for these areas. In addition, the air quality conditions presented in the *Final 2012 Air Quality Management Plan* are based on the assumption that future development projects will implement strategies to reduce emissions generated during the construction and operational phases of development (Urban Crossroads, Inc., 2016a, p. 49). Accordingly, if a proposed project is consistent with these growth forecasts, and if available emissions reduction strategies are implemented as effectively as possible on a project-specific basis, then the project is considered to be consistent with the *Final 2012 Air Quality Management Plan*.

The SCAQMD has established criteria for determining consistency with the *Air Quality Management Plan*. These criteria are defined in Chapter 12, Sections 12.2 and 12.3 of the SCAQMD's *CEQA Air Quality Handbook* and are discussed below.

- *Consistency Criterion No. 1: The proposed project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.*

Consistency Criterion No. 1 refers to violations of the CAAQS and NAAQS. CAAQS and NAAQS violations would occur if LSTs or regional significance thresholds were exceeded. As evaluated under Threshold (d) (below), the Project's localized construction-source emissions would exceed applicable LSTs. Therefore, the Project has the potential to conflict with the AQMP according to this criterion and a significant impact would occur associated with consistency with the AQMP.

- *Consistency Criterion No. 2: The proposed project will not exceed the assumptions in the AQMP based on the years of project buildout phas*e.

The growth forecasts used in the AQMP to project future emissions levels are based in part on land use data provided by lead agency general plan documentation. Projects that propose to increase the intensity of use on a subject property may result in increased stationary area source emissions and/or

vehicle source emissions when compared to the AQMP assumptions. If a project does not exceed the growth projections in the applicable local general plan, then the project is considered to be consistent with the growth assumptions in the AQMP.

As shown in EIR Section 2.0, *Environmental Setting,* Figure 2-2, *Existing General Plan Land Use Designations*, the Riverside County General Plan and Mead Valley Area Plan designate the majority of the Building D Site for "Community Development–Light Industrial (CD-LI)" land uses and the southwest portion of the Building D Site for "Community Development-Business Park (CD-BP)" land uses. As shown in EIR Section 2.0, *Environmental Setting*, Figure 2-3, *Existing Zoning Designations,* the Building D Site is zoned "Manufacturing – Medium (M-M)," "Rural Residential (R-R)," and "Industrial Park (I-P)." The Building E Site is zoned "Rural Residential 1/2-Acre Lot Sizes (R-R-1/2)" and "Industrial Park (I-P)."

The Project proposes two General Plan Amendment (GPA) applications. Proposed GPA 1151 would change the land use designation of the portion of the Building D Site designated CD-BP to CD-LI so that the entire Building D Site is designated CD-LI. Proposed GPA 1152 would change the land use designation of the portion of the Building E Site designated CD-BP to CD-LI. The Project proposes to incorporate contemporary energy-efficient technologies and operational programs and comply with SCAQMD emissions reductions and control requirements that act to reduce stationary-source air emissions. These Project attributes are consistent with and support AQMP air pollution reduction strategies and generally promote timely attainment of AQMP air quality standards. Furthermore, the Project would comply with the applicable objectives and policies established in the Air Quality Element of the County of Riverside General Plan. (Urban Crossroads, Inc., 2016a, pp. 49-50) Because the proposed Project would provide a similar level of building intensity on the Project site compared to the intensity of building anticipated by the Riverside County General Plan, the Project would be consistent with Consistency Criterion No. 2. Although two GPA applications are proposed to change portions of the site from CD-BP to CD-LI, the amount of building and traffic intensity (and thereby, area, energy, and mobile source emissions) would be similar, if not less intense from CD-BP land uses due to a higher traffic generation rate per building square foot for the CD-BP designation compared to the Project's proposed high cube warehouse buildings under the proposed CD-IP designation.

Although the Project would be consistent with Criterion 2, it would be inconsistent with Criterion 1, resulting in a significant air quality impact due to inconsistency with the SCAQMD's AQMP.

Threshold b)	***Would the Project violate any air quality standard or contribute substantially to an existing or projected air quality violation?***
Threshold c)	***Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors?***

A. Construction Emissions Impact Analysis

For purposes of analysis, the air quality impact analysis (*Technical Appendix B1*) and the analysis herein assumes that construction would commence in January 2016 and last through November 2017. A detailed description of the Project's analyzed construction schedule and construction activities is provided in EIR Section 3.0, *Project Description*. Knowing that construction activities would occur at a later date than assumed by the analysis presented in the air quality impact analysis (*Technical Appendix B1*) and herein, emission quantities associated with construction equipment exhaust would be less than disclosed in *Technical Appendix B1* and herein, due to the application of more restrictive regulatory requirements for construction equipment and on-going replacement of older construction fleet equipment with newer, lower emission equipment by construction contractors. The estimated maximum daily construction emissions associated with the Project's construction phase are shown in Table 4.3-5, *Emissions Summary of Overall Construction (Without Mitigation)*. Detailed construction-related emissions model inputs are provided in Appendix 3.2 of *Technical Appendix B1* to this EIR.

As identified in Table 4.3-5, Project-related construction emissions would not exceed criteria standards pollutant thresholds for VOC's, CO, SO_X, PM_{10}, and $PM_{2.5}$. However, the Project-related construction emissions would exceed criteria standards pollutant thresholds established by the SCAQMD for NO_X. NO_X is a precursor for ozone, a pollutant for which the SCAB does not attain federal or State standards (refer to Table 4.3-2). Accordingly, the Project would emit substantial concentrations of NO_X during construction, primarily associated with combustion exhaust from construction equipment engines that would cause or contribute to an existing or projected air quality violation, on both a direct and cumulatively considerable basis. Thus, a significant impact would occur. It is noted that impacts without Best Available Control Measures (BACMs) do not take credit for reductions achieved through BACMs and standard regulatory requirements (SCAQMD's Rule 403). (Urban Crossroads, Inc., 2016a, pp. 33-34) Refer to Subsection 4.3.7 for standard regulatory requirements and the recommended mitigation measures provided to reduce the Project's construction-related emissions of NO_X. Regardless, a significant impact would continue to occur.

B. Operational Emissions Impact Analysis

For purposes of analysis, the analysis herein assumes the Project to be fully operational at the end of 2017. Emissions associated with Project operations (assuming a larger sized Building E than is currently proposed) are presented in Table 4.3-6, *Summary of Peak Operational Emissions*. Detailed emission model outputs are presented in Appendices 3.2 and 3.3 of *Technical Appendix B1*. Detailed emission model outputs for the Project considering the currently proposed (smaller) size of Building E

are contained as Attachment A to a supplemental analysis prepared to address the smaller building, which is appended to the front of *Technical Appendix B1*.

As shown on Table 4.3-6, the Project would exceed SCAQMD's regional criteria for VOCs and NO_X during long-term operation of the Project. These emissions are primarily associated with combustion exhaust from on- and off-road vehicles. Therefore, during long-term operation, the Project's emissions of VOCs and NO_X would be a significant impact to the environment on both a direct and cumulatively considerable basis. Refer to Subsection 4.3.7 for regulatory requirements and recommended mitigation measures to reduce the Project's operational-related emissions of VOCs and NO_X.

Threshold d) Would the Project expose sensitive receptors which are located within 1.0 mile of the project site to project substantial point source emissions?

A. Construction-Related Localized Emissions Impact Analysis

As discussed in Subsection 4.3.1, the nearest sensitive receptor land use are the residential uses located approximately 191 feet (58 meters) south of the Project site boundary. Table 4.3-8, *Localized Significance Summary* summarizes the Project's localized emissions during peak construction activity. As shown in Table 4.3-8, the Project's construction-related emissions would exceed the SCAQMD's localized significance thresholds for emissions of NO_X, PM_{10}, and $PM_{2.5}$ at the nearest receptor location in the vicinity of the Project site. Thus, the impact is significant and applicable regulatory requirements and mitigation measures are listed in Subsection 4.3.7, including the mandatory requirements comply with SCAQMD Rule 403 and California Air Resources Board, Title 13, Chapter 10, Section 2485, Division 3 of the California Code of Regulations.

B. Operational-Related Localized Emissions Impact Analysis

Criteria Pollutant Emissions

Table 4.3-9, *Localized Significance Summary Operations*, presents the Project's calculated daily localized emissions during long-term operation. Detailed operational localized emissions model outputs are presented in Appendix 3.2 and 3.3 of *Technical Appendix B1*. As shown in Table 4.3-9, the Project's estimated operational localized emissions associated with CO, NO_2, PM_{10} and $PM_{2.5}$ would not exceed localized thresholds established by the SCAQMD. Accordingly, long-term operation of the proposed Project would not expose any sensitive receptors which are located within 1.0 mile of the Project site to substantial point source emissions on a direct or cumulatively considerable basis. Impacts are less than significant. Although the Project would not generate substantial point source emissions on a direct or cumulatively considerable basis, mitigation measures are provided in Subsection 4.3.7 that would further reduce the levels disclosed in Table 4.3-9.

CO Hot Spot Impact Analysis

A CO "hot spot" would occur if an exceedance of the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm were to occur. A CO "hot spot" analysis was not performed by Urban

Crossroads, Inc. to evaluate the effect of Project-related vehicular emissions of CO because CO attainment was thoroughly analyzed as part of SCAQMD's 2003 AQMP and the *1992 Federal Attainment for Carbon Monoxide (1992 CO Plan*). As identified in the SCAQMD's *2003 AQMP* and the *1992 CO Pla*n, peak carbon monoxide concentrations in the SCAB were a result of unusual meteorological and topographical conditions and not a result of congestion at a particular intersection. To establish a more accurate record of baseline CO concentrations affecting the SCAB, a CO "hot spot" was conducted in 2003 at four busy intersections in Los Angeles at the peak morning and afternoon periods. The busiest intersection had a daily traffic volume of 100,000 vehicles per day. The *2003 AQMP* estimated that the CO 1-hour concentration for this intersection was 4.6 ppm, which indicates that the most stringent CO standard (20.0 ppm) would likely not be exceeded until the daily traffic at the intersection exceeded more than 400,000 vehicles per day. In comparison, at buildout of the proposed Project, the highest average daily trips on a segment of road would be 31,300 daily trips on Harley Knox Boulevard east of I-215 which is lower than the daily trip volumes studies by SCAQMD that had no impact. (Urban Crossroads, Inc., 2016a, pp. 46-47)

Similar considerations are also employed by other Air Districts when evaluating potential CO concentration impacts. The Bay Area Air Quality Management District (BAAQMD) concluded that in order to generate a significant CO impact under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour or 24,000 vehicles per hour where vertical and or horizontal air does not mix. The proposed Project would not produce the volume of traffic required to generate a CO "hot spot" either in the context of the Los Angeles "hot spot" study or based on representative BAAQMD CO threshold considerations. (Urban Crossroads, Inc., 2016a, pp. 46-47). Accordingly, Project-related vehicular emissions would not result in a substantial contribution of CO concentrations at intersections in the vicinity of the Project site and sensitive receptors would not be exposed to substantial CO concentrations generated by the Project's vehicular traffic.

Diesel Particulate Emissions Impact Analysis

The Project's operational activities would generate/attract diesel-fueled trucks that produce DPM as a by-product of fuel combustion. To evaluate the Project's potential to expose nearby sensitive receptors so substantial amounts of DPM during long-term operation, a Mobile Source Health Risk Assessment was prepared for the proposed Project by Urban Crossroads, Inc. and is included as *Technical Appendix B2* (assuming a larger sized Building E than is currently proposed). Detailed model outputs for the Project considering the currently proposed (smaller) size of Building E are contained as Attachment A to a supplemental analysis prepared to address the smaller building, which is appended to the front of *Technical Appendix B1*.

The closest residential land use is located approximately 191 feet south of the Project site. At the maximally exposed individual receptor (MEIR), the maximum incremental cancer risk attributable to Project DPM source emissions is calculated to be 6.19 in 1,000,000 (assuming the resident(s) would stay at their home 24 hours a day, 350 days per year for 70 years), which is less than the SCAQMD cancer risk threshold of 10 in 1,000,000. With the smaller currently proposed Building E, the DPM

source emissions at the MEIR is reduced to 5.97 in 1,000,000 (Urban Crossroads, Inc., 2017a). At the same location, non-cancer risks are calculated to be 0.004, which would not exceed the applicable threshold of 1.0. (Urban Crossroads, Inc., 2016b, p. 1)

The closest worker receptor land use is located to the east, immediately adjacent to the Project site. At the maximally exposed individual worker (MEIW), the maximum incremental cancer risk impact at this location is 0.91 in 1,000,000 (assuming the worker(s) would stay at their work site 12 hours a day, 245 days per year for 40 years) which is less than the threshold of 10 in 1,000,000. Maximum non-cancer risks at this same location are calculated to be 0.003, which would not exceed the applicable threshold of 1.0. (Urban Crossroads, Inc., 2016b, p. 1)

The nearest school is Thomas Rivera Middle School which is located approximately 1.0 mile (5,280 feet) southwest of the Project site. At the maximally exposed individual school child (MEIS), the maximum incremental cancer risk impact at this location is 0.01 in 1,000,000 (assuming the school child(ren) would stay at their school 10 hours a day, 180 days per year for nine years) which is less than the threshold of 10 in 1,000,000. Maximum non-cancer risks at this location are estimated to be 0.00007 which would not exceed the applicable threshold of 1.0. (Urban Crossroads, Inc., 2016b, p. 1)

Accordingly, long-term operations at the Project site would not directly cause or contribute in a cumulatively considerable manner to the exposure of the MEIR, MEIW, or MEIS to substantial DPM emissions. Therefore, implementation of the proposed Project would result in a less-than-significant impact to expose MEIR, MEIW, and MEIS which are located within 1.0 mile of the Project site to project substantial point source DPM emissions. Although implementation of the Project would result in a less-than-significant impact associated with DPM emissions, the mitigation measures required in EIR Subsection 4.3.7 to reduce the Project's operational air quality impacts would further reduce DPM emissions associated with long-term operation of the Project.

Threshold e) Would the Project involve the construction of a sensitive receptor located within one mile of an existing substantial point source emitter?

The Project proposes to develop the property with two business park warehouse buildings which would not contain sensitive receptors or land uses that would be considered point source emitters; therefore, no impact would occur.

Threshold f) Would the Project create objectionable odors affecting a substantial number of people?

Under existing conditions, the Project site is mostly undeveloped and vacant, with exception of the southwest corner of the site which contains a mobile home and a concrete pad that is used for storage of construction equipment. Accordingly, the Project does not contain land uses typically associated with emitting objectionable odors. The Project could produce odors during proposed construction

activities resulting from construction equipment exhaust, application of asphalt, and/or the application of architectural coatings; however, standard construction practices would minimize odor emissions and their associated impacts. Furthermore, any odors emitted during construction activities would be temporary, short-term, and intermittent in nature, and would cease upon completion of construction activities. In addition, construction activities on the Project site would be required to comply with SCAQMD Rule 402, which prohibits the discharge of odorous emissions that would create a public nuisance. Accordingly, the proposed Project would not create objectionable odors affecting a substantial number of people during construction activities. Therefore, implementation of the Project would result in less-than-significant odor impacts during short-term construction activities. Thus, no mitigation is required.

Under long-term operational conditions, the Project would include business park warehouse land uses, which are not typically associated with objectionable odors. The temporary storage of refuse associated with the Project's long-term operational use could be a potential source of odor; however, Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the County's solid waste regulations, thereby precluding any significant odor impact. Furthermore, the Project would be required to comply with SCAQMD Rule 402, which prohibits the discharge of odorous emissions that would create a public nuisance during long-term operation of the Project. As such, long-term operation of the proposed Project would not create objectionable odors affecting a substantial amount of people. Thus, a less-than-significant impact would occur.

4.3.5 CUMULATIVE IMPACT ANALYSIS

The cumulative study area for air emissions impacts is the SCAB using the summary of projections approach based on General Plan buildout. Also, the SCAQMD considers all impacts that are significant and direct to also be cumulatively considerable. As discussed in the analysis of Threshold (a), the Project would not be consistent with the SCAQMD's AQMP because SCAQMD localized significance thresholds would be exceeded during Project construction, and the light industrial land use proposed by the Project on a portion of the Building E Site would be more intense than the rural residential land use assumed for a portion of the Building E Site by the Riverside County General Plan, which was relied upon by the SCAQMD for the 2012. Other development projects in the SCAB will be under construction at the same time that the Project is under construction, and amendments to General Plans are occurring throughout the SCAB to increase development intensity. As such, there is a cumulative impact associated with AQMP inconsistency and the Project's contribution to this inconsistency is cumulatively considerable.

As discussed in the analysis of Thresholds (b) and (c), Project-related construction emissions would exceed criteria standards pollutant thresholds established by the SCAQMD for NO_X. The Project also would exceed SCAQMD's regional criteria for VOCs and NO_X during long-term operation of the Project. VOCs and NO_X are precursors for ozone, a pollutant for which the SCAB is in non-attainment under both federal and State criteria. The SCAQMD considers all impacts that are significant on a direct basis to also be cumulatively considerable because the SCAB does not attain State and federal air quality standards for several pollutants, including ozone.

As discussed in the analysis of Threshold (d), the Project's construction-related emissions would exceed the SCAQMD's localized significance thresholds for emissions of NO_X, PM_{10}, and $PM_{2.5}$. Because other development projects affecting the same sensitive receptors have the potential to be under construction at the same time as the proposed Project, impacts are also considered to be cumulatively considerable. The Project's estimated operational localized emissions of all air pollutants would not exceed localized thresholds established by the SCAQMD. As also discussed in the analysis of Threshold (d), Project-related vehicular emissions would not result in a substantial contribution of CO concentrations at intersections in the vicinity of the Project site and sensitive receptors would not be exposed to substantial CO concentrations generated by the Project's vehicular traffic. Based on existing and projected traffic volumes at intersections, there are no known CO hotspot locations in the Project's traffic study area, nor are any CO hotspots expected t to occur in the foreseeable future. As such, there would be no significant cumulative impact.

As also discussed in the analysis of Threshold (d), long-term operations at the Project site would not directly cause or contribute in a cumulatively considerable manner to the exposure of the MEIR, MEIW, or MEIS to substantial DPM emissions. The SCAQMD considers impacts that are not significant on a direct level to also not be cumulatively considerable. Accordingly, a cumulatively considerable impact would not occur as the result of the proposed Project. (Urban Crossroads, Inc., 2016a, p. 30)

For informational purposes, it is noted that stationary (loading dock) and mobile source emissions from cumulative projects and from future development on currently undeveloped or undeveloped parcels within 0.25 mile radius of the Project site and projects beyond 0.25 mile radius that add mobile sources to the same roadway segments as the proposed Project's truck route, have the potential to increase health risks in the Project vicinity associated with air pollution. (Urban Crossroads, Inc., 2016b, p. 30) As indicated in Table 4.3-10, *Cumulative Carcinogenic Heath Risk,* the total estimated cancer risk associated with the cumulative projects is estimated to be 213.5 in 1,000,000. As indicated in Table 4.3-10, the highest total cumulative with Project cancer risk for MEIR is 758.25 in 1,000,000 for MEIR. The Project's maximum incremental contribution to the cumulative health risk for MEIR in the Project area is 6.19 in 1,000,000 (assuming the larger sized Building E and 5.97 in 1,000,000 considering the currently proposed size of Building E) which is below the 10 in 1,000,000 incremental threshold set by SCAQMD. The highest cumulative with Project cancer risk for MEIW is 752.97 in one million. The Project's maximum incremental contribution to the cumulative health risk for MEIW in the Project area is 0.91 in 1,000,000 which below the 10 in 1,000,000 threshold set by the SCAQMD. The Project's highest cumulative with Project cancer risk for MEIS is 752.07 in 1,000,000. The Project's maximum incremental contribution to the cumulative health risk for MEIS in the Project area is 0.01 in 1,000,000 which is below the 10 in 1,000,000 incremental threshold set by SCAQMD. Therefore, pursuant to SCAQMD cumulative impact criteria, the Project's MEIR, MEIW, and MEIS impacts would be less than significant on a direct basis and less than cumulatively considerable. (Urban Crossroads, Inc., 2016b, pp. 30-31 and Table 2-7)

As discussed in the analysis of Threshold (e), the Project proposes to develop the property with two business park warehouse buildings which would not contain sensitive receptors or land uses that would be considered point source emitters. Accordingly, a cumulatively considerable impact would not occur.

As discussed in the analysis of Threshold (f), there are no components of the proposed Project's construction or long-term operation that would result in the exposure of a substantial number of sensitive receptors to objectionable odors. Accordingly, a cumulatively considerable impact would not occur.

4.3.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold (a) for the Building D Site and the Building E Site: Significant Direct and Cumulatively Considerable Impact. Project construction-source emissions would exceed localized significance thresholds for NO_x, PM_{10}, and $PM_{2.5}$. Therefore, the proposed Project would conflict with the implementation of the AQMP on a significant direct and cumulatively considerable basis.

Thresholds (b) and (c) for the Building D Site and the Building E Site: Significant Direct and Cumulatively Considerable Impact. The Project would emit concentrations of NO_X during construction that would cause or contribute to an existing or projected air quality violation, on both a direct and cumulatively considerable basis. During long-term operation, the Project would exceed SCAQMD's regional criteria for daily VOC and NO_X emissions which would result in a significant impact to the environment on both a direct and cumulatively considerable basis.

Threshold (d) for the Building D Site and the Building E Site: Significant Direct and Cumulatively Considerable Impact. The Project's construction- -related emissions would exceed the SCAQMD's localized significance thresholds for emissions of NO_x PM_{10}, and $PM_{2.5}$. The Project's emissions would not create a CO hotspot. Long-term operation of the Project would cause less-then-significant direct and less-than-significant cumulatively considerable human health impacts due to the exposure of residents, workers, and school children to diesel particulate matter.

Threshold (e) for the Building D Site and the Building E Site: No Impact. The Project proposes to develop the property with two business park warehouse buildings which would not contain sensitive receptors that could be exposed to point source emissions. The Project does not propose land uses that would be considered point source emitters.

Threshold (f) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would not produce unusual or substantial construction-related odors. Odors associated with long-term operation of the Project would be minimal and less than significant. The Project would be required to comply with SCAQMD Rule 402, which prohibits the discharge of odorous emissions that would create a public nuisance.

4.3.7 MITIGATION

Applicable County Regulations and Design Requirements

The following are applicable regulations and design requirements to which the Project is required to comply. Although these regulations and requirements technically do not meet CEQA's definition for mitigation, they are listed below for information purposes.

- The Project is required to comply with the provisions of the South Coast Air Quality Management District (SCAQMD) Rule 403 "Fugitive Dust." Rule 403 requires implementation of best available dust control measures during construction activities that generate fugitive dust, such as earth moving, grading, and construction equipment travel on unpaved roads. To comply with Rule 403, and prior to grading permit issuance, the County of Riverside shall verify that notes are specified on the Project's grading plans requiring Rule 403 compliance. Project construction contractors would be required to ensure compliance with the notes and permit periodic inspection of the construction site by County of Riverside staff or its designee to confirm compliance. To comply with Rule 403:

  1. In order to limit fugitive dust emissions, all clearing, grading, earth-moving, or excavation activities shall cease when winds exceed 25 miles per hour (mph) per SCAQMD guidelines.

  2. The construction contractor(s) shall ensure that all disturbed unpaved roads and disturbed areas within the Project site are watered at least three (3) times daily during dry weather. Watering, with complete coverage of disturbed areas, shall occur at least three (3) times a day, preferably in the mid-morning, afternoon, and after work is done for the day.

  3. The construction contractor(s) shall ensure that traffic speeds on unpaved roads and the Project site area are reduced to 15 miles per hour or less.

- The Project is required to comply with the provisions of the South Coast Air Quality Management District (SCAQMD) Rule 1113 "Table of Standards" pertaining VOC emissions by using zero-Volatile Organic Compounds paints (no more than 100 gram/liter of VOC) and/or High Pressure Low Volume (HPLV) applications. Prior to building permit final inspection, the County of Riverside shall verify a note requiring Rule 1113 compliance is specified on all building plans. Project contractors would be required to comply with the note and maintain written records of such compliance that can be inspected by the County of Riverside or its designee upon request.

- The Project's construction activities are required to comply with the provisions of the South Coast Air Quality Management District (SCAQMD) Rule 1186 "PM10 Emissions from Paved

and Unpaved Roads and Livestock Operations," which requires the use of a street sweeper certified by the AQMD, and the use of non-toxic chemical stabilizers for dust control.

- Project construction activities are required to comply with the California Manual on Uniform Traffic Control Devices, which specify that temporary traffic controls shall be provided during construction, such as a flag person, during all phases of construction to facilitate the flow of construction traffic on streets abutting the Project site.

- The Project is required to comply with the provisions of SCAQMD Rule 402, "Nuisance" which requires that a person shall not discharge air contaminants or other materials that would cause health or safety hazards to any considerable number of persons or the public.

- The Project is required to comply with the California Green Building Standards Code (CALGreen), including all Nonresidential Mandatory Measures, including but not limited to requirements for bicycle parking, parking for clean air vehicles, charging stations, lighting, water conservation, waste reduction, and building maintenance. The provisions of CALGreen reduce energy use and fossil fuel use, which reduce air pollutant emissions.

- Diesel-fueled vehicles at the Project site are required to comply with the California Air Resources Board (CARB) idling restriction requirements, which currently restrict vehicles from idling for more than 5 minutes. Prior to building permit final inspection, the County of Riverside shall verify that signs are posted in the Project's truck courts specifying the idling restriction requirement.

Mitigation Measures

The following mitigation measures are required to reduce the Project's significant impacts associated with construction-related emissions of NO_x, PM_{10}, $PM_{2.5}$, and NOx.

MM 4.3-1 Prior to grading permit issuance, the County of Riverside shall verify that the following notes are included on the grading plans. Project contractors shall be required to ensure compliance with these notes and permit periodic inspection of the construction site by County of Riverside staff or its designee to confirm compliance. These notes also shall be specified in bid documents issued to prospective construction contractors.

a) Onsite electrical hook-ups to a power grid shall be provided for electric construction tools including saws, drills, and compressors, where feasible, to reduce the need for diesel powered electric generators.

b) All Heavy-Heavy Duty Haul Trucks (HHD) accessing the Project site shall use year 2010 or newer engines during all construction activities to the extent such HHD are commercially available.

c) All excavators, graders, and rubber-tired dozers shall be CARB Tier 3 Certified or better.

d) All scrapers shall be CARB Tier 4 Certified or better.

e) The total horsepower-hours per day for all on-site equipment shall not exceed 46,344 horsepower hours per day.

f) The maximum daily disturbance area (actively graded area) shall not exceed 11.0 acres per day.

MM 4.3-2 Construction equipment shall be properly maintained according to manufacturer specifications and all contractors shall turn off all construction equipment and delivery vehicles when not in use, or limit onsite idling to no more than five minutes in any one hour. Onsite electrical hook-ups to a power grid shall be provided for electric construction tools including saws, drills, and compressors, where feasible, to reduce the need for diesel powered electric generators. Construction contractors shall keep construction equipment maintenance records and data sheets of equipment design specifications (including the emission control tier of the equipment) onsite during construction and subject to inspection by the County of Riverside.

The following mitigation measures are required to reduce the Project's significant impacts to regional operation-source emissions associated with NO_X and VOC.

MM 4.3-3 Within six months of building occupancy, signs shall be posted at the building informing truck drivers about the health effects of diesel particulates, the California Air Resources Board diesel-fueled vehicle idling regulations, and the importance of being a good neighbor by not parking in residential areas. Developer and all successors shall include this obligation in all leases of the Project so that all tenants shall fulfill the terms and conditions of this County condition of approval.

MM 4.3-4 Within six months of building occupancy, signs shall be posted in all dock and delivery areas containing the following: truck drivers shall turn off engines when not in use; trucks shall not idle for more than five minutes; telephone numbers of the building facilities manager and the California Air Resources Board to report violations. Developer and all successors shall include the provisions of the requirements of these

obligations in all leases of the Project so that all tenants shall fulfill the terms and conditions of this County condition of approval.

MM 4.3-5 Owner users and tenants of the Project shall maintain records on its fleet equipment and vehicle engine maintenance to ensure that its HHD fleet serving the warehouses within the Project are in good condition, and in proper tune pursuant to manufacturer's specifications. Owner users and tenants shall ensure that all HHD accessing the Project site shall comply with 13 California Code of Regulations Section 2025, as may be amended (the "Regulations"), and that all HHD accessing the Project site shall comply with the required registration and reporting provisions of the Regulations. Developer and all successors shall include the provisions of the requirements of these obligations in all leases of the Project so that all tenants shall fulfill the terms and conditions of this County condition of approval.

MM 4.3-6 Site enforcement staff in charge of monitoring for excess vehicle idling shall be trained/certified in diesel health effects and technologies, for example, by requiring attendance at California Air Resources Board approved courses. Developer and all successors shall include this obligation in all leases of the Project so that all tenants shall fulfill the terms and conditions of this County condition of approval.

MM 4.3-7 All owner users and future tenants shall participate in Riverside County's Rideshare Program. The purpose of this program is to discourage single-occupancy vehicle trips and encourage other alternative modes of transportation. Carpooling opportunities and public transportation information shall be advertised to employees of the building tenant. Developer and all successors shall include the provisions of this obligation in all leases of the Project so that all tenants shall fulfill the terms and conditions of this County condition of approval.

MM 4.3-8 Prior to the issuance of a building permit, the County shall verify that the building's roof is designed to accommodate a 1 KW photovoltaic (PV) solar array taking into consideration limitations imposed by other rooftop equipment, roof warranties, building and fire code requirements, and other physical or legal limitations. The building shall be constructed with the necessary electrical system and other infrastructure to accommodate PV arrays in the future. The electrical system and infrastructure shall be clearly labeled with noticeable and permanent signage which informs future occupants/owners of the existence of this infrastructure.

MM 4.3-9 Developer and all successors shall include information in building lease agreements that inform tenants about the air quality benefits associated with water-based or low volatile organic compounds (VOC) cleaning products.

MM 4.3-10 Developer and all successors shall include information in building lease agreements that inform tenants about the benefits of becoming SmartWay Shippers and SmartWay Carriers. SmartWay is a federal EPA program that advances supply chain sustainability.

4.3.8 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Threshold (a) for the Building D Site and the Building E Site: Significant and Unavoidable Direct and Cumulatively Considerable Impact. Although compliance with regulatory requirements and Mitigation Measures MM 4.3-1 through MM 4.3-10 would reduce the Project's air pollutant impacts and thus its inconsistency with SCAQMD's 2012 AQMP, the Project's inconsistency with the AQMP would remain significant and unavoidable. There are no feasible mitigation measures that can reduce the Project's impacts to below a level of significance.

Threshold (b) and (c) for the Building D Site and the Building E Site: Significant and Unavoidable Direct and Cumulatively Considerable Impact. As indicated in Table 4.3-11, *Emissions Summary of Overall Construction (With Mitigation),* mitigation measures would reduce the Project's short-term construction emissions associated with NO_X to below the SCAQMD regional thresholds. As indicated in Table 4.3-12, *Summary of Peak Operational Emissions (With Mitigation)*, even with mitigation, the Project's operational emissions associated with VOCs and NO_X would still exceed the SCAQMD's regional threshold. The Project would comply with all regulatory requirements and this EIR recommends feasible mitigation to reduce VOCs; however, there is no mitigation available to reduce VOCs below the SCAQMD's regional threshold. Emissions of NO_X are primarily a result of mobile source emissions (i.e., vehicles traveling to and from the Project site), which are regulated by state and federal emissions and fuel use standards, and beyond the direct control of the Project Applicant and/or future users of the Project site's buildings. No other mitigation is available for NOx emissions from vehicle tailpipes that is feasible for the Project Applicant to implement and the County of Riverside to enforce that would have a proportional nexus to the Project's level of impact. As such, it is concluded that the Project's long-term emissions of VOCs and NO_X would cumulatively contribute to an existing air quality violation in the SCAB (i.e., ozone and NO_X), as well as cumulatively contribute to the net increase of criteria pollutants for which the SCAB is in non-attainment (federal and state ozone concentrations). Effects to human health resulting from NOx concentrations include respiratory illness, including but not limited to asthma and chronic obstructive pulmonary diseases (e.g., chronic bronchitis, emphysema). Effects to human health resulting from VOC concentrations include but are not limited to irritation to the eye, nose, and throat, which can reduce respiratory volume as, well as sensory nerve stimulation that can compromise the immune system. Accordingly, the Project's long-term operational emissions associated with VOCs and NO_X are concluded to result in a significant and unavoidable impact on both a direct and cumulatively considerable basis.

Threshold (d) for the Building D Site and the Building E Site: Less-than-Significant Impact. Implementation of Mitigation Measures MM 4.3-1 and MM 4.3-2, combined with mandatory compliance with SCAQMD Rule 403 and California Air Resources Board, Title 13, Chapter 10, Section 2485, Division 3 of the California Code of Regulations, would reduce the emissions during

Project construction to below the SCAQMD's localized significance thresholds. Refer to Table 4.3-8, *Localized Significance Summary Peak Construction (With Mitigation).*

Table 4.3-1 Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards [1]		National Standards [2]		
		Concentration [3]	Method [4]	Primary [3,5]	Secondary [3,6]	Method [7]
Ozone (O_3)	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m^3)		0.075 ppm (147 µg/m^3)		
Respirable Particulate Matter (PM10)[8]	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 (PM2.5)[8]	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	12.0 µg/m^3	15 µg/m^3	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m^3)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	
Nitrogen Dioxide (NO_2)[9]	1 Hour	0.18 ppm (339 µg/m^3)	Gas Phase Chemiluminescence	100 ppb (188 µg/m^3)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)		0.053 ppm (100 µg/m^3)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[10]	1 Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m^3)	—	Ultraviolet Flourescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m^3)	
	24 Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas)[10]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas)[10]	—	
Lead[11,12]	30 Day Average	1.5 µg/m^3	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m^3 (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m^3		
Visibility Reducing Particles[13]	8 Hour	See footnote 13	Beta Attenuation and Transmittance through Filter Tape	No National 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[11]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

Source: (Urban Crossroads, Inc., 2016a, Table 2-1)

Table 4.3-2 Attainment Status of Criteria Pollutants in the South Coast Air Quality Basin (SCAB)

Criteria Pollutant	State Designation	Federal Designation
Ozone - 1hour standard	Nonattainment	No Standard
Ozone - 8 hour standard	Nonattainment	Nonattainment
PM_{10}	Nonattainment	Attainment
$PM_{2.5}$	Nonattainment	Nonattainment
Carbon Monoxide	Attainment	Unclassified/Attainment
Nitrogen Dioxide	Attainment	Unclassified/Attainment
Sulfur Dioxide	Attainment	Attainment
Lead[1]	Attainment	Attainment

Source: State/Federal designations were taken from http://www.arb.ca.gov/desig/adm/adm.htm.
Note: See Appendix 3.1 of Technical Appendix B1 for a detailed map of State/National Area Designations within the SCAB.
Source: (Urban Crossroads, Inc., 2016a, Table 2-2)

Table 4.3-3 Project Area Air Quality Monitoring Summary 2012-2014

POLLUTANT	STANDARD	YEAR		
		2012	2013	2014
Ozone (O_3) [a]				
Maximum 1-Hour Concentration (ppm)		0.111	0.108	0.117
Maximum 8-Hour Concentration (ppm)		0.093	0.090	0.094
Number of Days Exceeding State 1-Hour Standard	> 0.09 ppm	28	--	--
Number of Days Exceeding State 8-Hour Standard	> 0.07 ppm	64	--	--
Number of Days Exceeding Federal 1-Hour Standard	> 0.12 ppm	0	0	--
Number of Days Exceeding Federal 8-Hour Standard	> 0.075 ppm	46	34	38
Number of Days Exceeding Health Advisory	≥ 0.15 ppm	0	0	--
Carbon Monoxide (CO) [b]				
Maximum 1-Hour Concentration (ppm)		--	4.5	2
Maximum 8-Hour Concentration (ppm)		1.5	1.4	1.4
Number of Days Exceeding State 1-Hour Standard	> 20 ppm	0	0	0
Number of Days Exceeding Federal / State 8-Hour Standard	> 9.0 ppm	0	0	0
Number of Days Exceeding Federal 1-Hour Standard	> 35 ppm	0	0	0
Nitrogen Dioxide (NO_2) [b]				
Maximum 1-Hour Concentration (ppm)		0.060	0.053	0.056
Annual Arithmetic Mean Concentration (ppm)		0.017	--	--
Number of Days Exceeding State 1-Hour Standard	> 0.18 ppm	0	0	0
Particulate Matter ≤ 10 Microns (PM_{10}) [a]				
Maximum 24-Hour Concentration ($\mu g/m^3$)		62	70	87
Number of Samples		60	57	60
Number of Samples Exceeding State Standard	> 50 $\mu g/m^3$	1	--	--
Number of Samples Exceeding Federal Standard	> 150 $\mu g/m^3$	0	0	0
Particulate Matter ≤ 2.5 Microns ($PM_{2.5}$) [b]				
Maximum 24-Hour Concentration ($\mu g/m^3$)		30.2	33.4	30.9
Annual Arithmetic Mean ($\mu g/m^3$)		11.4	11.6	--
Number of Samples Exceeding Federal 24-Hour Standard	> 35 $\mu g/m^3$	0	--	--

-+ date not available from either SCAQMD or EPA

[a] Data for ozone and PM10 was obtained from the Perris monitoring station (SRA 24)

[b] Data for CO, NO2, and PM2.5 was obtained from the Metropolitan Riverside County monitoring station (SRA 23)

Source: (Urban Crossroads, Inc., 2016a, Table 2-3)

Table 4.3-4 Maximum Daily Regional Emissions Thresholds

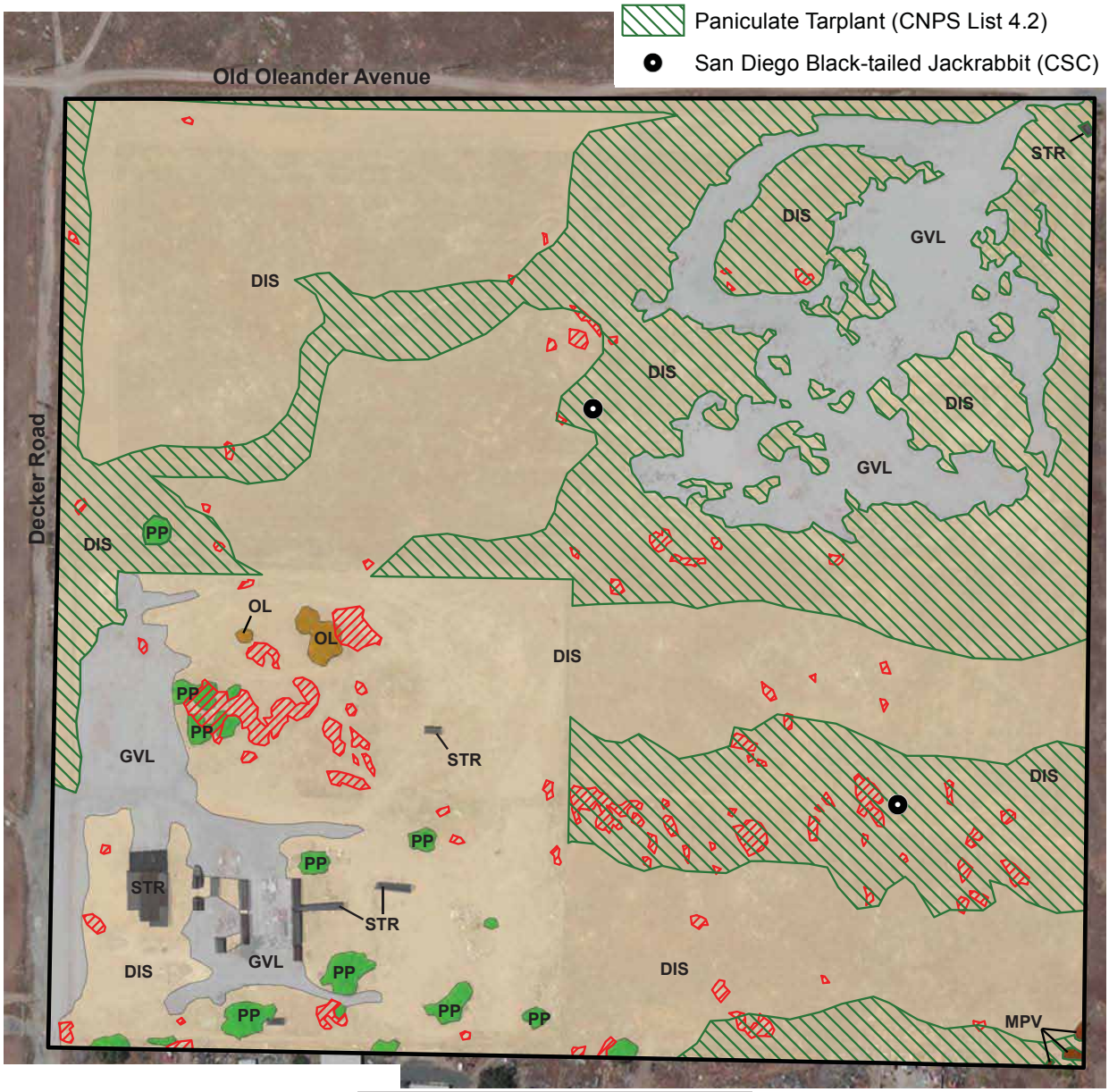
Pollutant	Construction	Operations
Regional Thresholds		
NOx	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM10	150 lbs/day	150 lbs/day
PM2.5	55 lbs/day	55 lbs/day
Sox	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
Localized Thresholds		
NOx	302 lbs/day	0.18 ppm
PM10	40 lbs/day	2.50 $\mu g/m^3$
PM2.5	10 lbs/day	2.50 $\mu g/m^3$
CO	2,178 lbs/day	20 ppm (1-Hour); 9.0 ppm (8-Hour)

Source: (Urban Crossroads, Inc., 2016a, Table 3-1)

Table 4.3-5 Emissions Summary of Overall Construction (Without Mitigation)

Year	Emissions (pounds per day)					
	VOC	NOx	CO	SOx	PM10	PM2.5
2016	22.35	264.67	170.94	0.23	51.04	28.15
2017	48.06	71.12	100.97	0.22	14.82	6.53
Maximum Daily Emissions	**48.06**	**264.67**	**170.94**	**0.23**	**51.04**	**28.15**
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	**NO**	**YES**	**NO**	**NO**	**NO**	**NO**

Source: (Urban Crossroads, Inc., 2016a Table 3-4)



LEGEND		
		Acres
DIS	*Disturbed*	31.04
GVL	*Gravel Road/Splay*	5.36
PP	*Peruvian Pepper*	0.37
STR	*Structure*	0.22
OL	*Olive*	0.07
MPV	*Mexican Palo Verde*	0.02
	Total	**37.08**

Source(s): Cadre Environmental (07-2016)

Figure 4.4-1

NOT TO SCALE

BUILDING D SITE BIOLOGICAL RESOURCES

Table 4.3-7 Localized Significance Summary Peak Construction (Without Mitigation)

Peak Construction	CO		NO_2	PM_{10}	$PM_{2.5}$
	Averaging Time				
	1-Hour	8-Hour	1-Hour	24-Hours	24-Hours
Peak Day Localized Emissions	0.42	0.07	0.31	23.51	11.68
Background Concentration [A]	4.5	1.5	0.06		
Total Concentration	**4.92**	**1.57**	**0.37**	**23.51**	**11.68**
SCAQMD Localized Significance Threshold	20	9	0.18	10.4	10.4
Threshold Exceeded?	**NO**	**NO**	**YES**	**YES**	**YES**

[A] Highest concentration from the last three years of available data
Note: PM_{10} and $PM_{2.5}$ concentrations are expressed in µg/m3. All others are expressed in ppm.
(Urban Crossroads, Inc., 2016a, Table 3-9)

Table 4.3-8 Localized Significance Summary Peak Construction (With Mitigation)

Peak Construction	CO		NO_2	PM_{10}	$PM_{2.5}$
	Averaging Time				
	1-Hour	8-Hour	1-Hour	24-Hours	24-Hours
Peak Day Localized Emissions	0.28	0.05	0.08	8.89	4.28
Background Concentration [A]	4.5	1.5	0.06		
Total Concentration	**4.78**	**1.55**	**0.14**	**8.89**	**4.28**
SCAQMD Localized Significance Threshold	20	9	0.18	10.4	10.4
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**

[A] Highest concentrations from the last three years of available date.
Note: PM_{10} and $PM_{2.5}$ concentrations are expressed in µg/m3. All others are expressed in ppm.
Source: (Urban Crossroads, Inc., 2016a. Table 3-10)

Table 4.3-9 Localized Significance Summary Operations

Operation	CO		NO_2		PM_{10}		$PM_{2.5}$
	Averaging Time						
	1-Hour	8-Hour	1-Hour	Annual	24-Hours	Annual	24-Hours
Peak Day Localized Emissions	0.016	0.011	0.022	0.004	0.68	0.22	0.62
Background Concentration [A]	4.5	1.5	0.06	0.017			
Total Concentration	**4.52**	**1.51**	**0.08**	**0.02**	**0.68**	**0.22**	**0.62**
SCAQMD Localized Significance Threshold	20	9	0.18	0.03	2.5	1	2.5
Threshold Exceeded?	NO	NO	NO	NO	NO	NO	NO

[A] highest concentrations from the last three years of available data.
Note: PM_{10} and $PM_{2.5}$ concentrations are expressed in µg/m^3. All others are expressed in ppm.
Source: (Urban Crossroads, Inc., 2016a, Table 3-11)

Table 4.3-10 Cumulative Carcinogenic Heath Risk

	Cancer Risk as Maximum Sensitive Receptor (risk in one million)			
	Existing	Project Site	Cumulative Projects	Total Cumulative Risk
Maximum Impact to All Receptors Without Project	538.56		213.5	752.06
Maximum Impact to Nearest Residential With Project	538.56	6.19	213.5	758.25
Maximum Impact to Nearest Worker With Project	538.56	0.91	213.5	752.97
Maximum Impact to Nearest School With Project	538.56	0.01	213.5	752.07
	Source: **MATES IV Carcinogenic Risk Interactive Map** (SCAQMD 2015).			

Note: Although cumulative impacts typically represent a General Plan Buildout Scenario, there is no such data available for the quantification of DPM emissions impacts at General Plan Buildout. The background risk, however, would likely overstate, rather than understate future DPM impacts and is assumed to be inclusive of future growth. It should be noted that due to improved DPM emissions control technologies and increasingly stringent DPM emissions regulations, the cancer risk incidence in the seven (7) years between the Mates III and Mates IV studies declined by approximately 50% even as population and business growth occurred throughout the region. Similar future declines in area-wide DPM source emissions are anticipated pursuant to enactment of further emissions regulations, including but not limited to anticipated greenhouse gas (GHG) reduction and control measures to be implemented by the State (see also: emissions regulatory measures discussed within the Project's Air Quality Impact Analysis (*Technical Appendix B1)* and the Project's Greenhouse Gas Analysis (*Technical Appendix B3*) (Urban Crossroads, Inc., 2016b, p. 35)
Source: (Urban Crossroads, Inc., 2016b, Table 2-7)

Table 4.3-11 Emissions Summary of Overall Construction (With Mitigation)

Year	Emissions (pounds per day)					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
2016	13.46	80.10	110.59	0.23	18.72	9.78
2017	48.06	71.12	100.97	0.22	14.81	6.53
Maximum Daily Emissions	**48.06**	**80.10**	**110.59**	**0.23**	**18.72**	**9.78**
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

Source: (Urban Crossroads, Inc., 2016a, Table 3-5)

Table 4.3-12 Summary of Peak Operational Emissions (With Mitigation)

Operational Activities – Summer Scenario	Emissions (pounds per day)					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Area Source Emissions	49.48	3.28e-3	0.35	3.00e-5	1.25e-3	1.25e-3
Energy Source Emissions	0.06	0.58	0.48	3.45e-3	0.04	0.04
Mobile Emissions (Trucks)	18.42	400.49	171.81	1.25	47.59	18.23
Mobile Emissions (Passenger Cars)	2.57	2.69	36.99	0.12	11.65	3.13
On-Site Equipment	1.48	17.75	7.38	0.02	0.81	0.74
Maximum Daily Emissions	**72.01**	**421.51**	**217.01**	**1.39**	**60.09**	**22.14**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**YES**	**YES**	**NO**	**NO**	**NO**	**NO**

Operational Activities – Winter Scenario	Emissions (pounds per day)					
	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Area Source Emissions	49.48	3.28e-3	0.35	3.00e-5	1.25e-3	1.25e-3
Energy Source Emissions	0.06	0.58	0.48	3.45e-3	0.04	0.04
Mobile Emissions (Trucks)	18.73	417.22	180.90	1.25	47.59	18.24
Mobile Emissions (Passenger Cars)	2.41	2.85	31.72	0.11	11.65	3.13
On-Site Equipment	1.48	17.75	7.38	0.02	0.81	0.74
Maximum Daily Emissions	**72.16**	**438.40**	**220.83**	**1.38**	**60.09**	**22.15**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**YES**	**YES**	**NO**	**NO**	**NO**	**NO**

Source: (Urban Crossroads, Inc., 2016a, Table 3-7)

Note: The numerical values shown in Table 4.3-12 were calculated prior to the Project Applicant's decision to reduce the size of the Building E Site and the size of its proposed building to the current configurations described in EIR Section 3.0, *Project Description*. Therefore, Urban Crossroads, Inc. prepared a supplemental analysis to address the reduction in size of the Building E Site and its proposed building. The update letter, "Knox Business Park Supplemental Air Quality Impact Analysis, Greenhouse Gas Impact Analysis, & Mobile Source Health Risk Assessment" is dated February 9, 2017, and is appended to the front of *Technical Appendix B1*. Based on the results of Urban Crossroads' Supplemental Analysis, all of the Project's air pollutant emissions would be less than the quantities disclosed in Table 4.3-12 (Urban Crossroads, Inc., 2017a).

4.4 BIOLOGICAL RESOURCES

This subsection assesses the proposed Project's potential to impact sensitive biological resources. Sensitive biological resources are habitats and individual plant and wildlife species that have special recognition by federal, state, and/or local conservation agencies as being endangered, threatened, or rare, and/or fall under the jurisdiction of the United States Fish and Wildlife Service (USFWS), United States Army Corps of Engineers (USACE), California Department of Fish and Wildlife (CDFW), Regional Water Quality Control Board (RWQCB), and/or are afforded protections under applicable Habitat Conservation Plans (HCPs) or the Riverside County Municipal Code.

As discussed in Section 3.0, *Project Description*, the Project proposes the development of two properties located south of Oleander Avenue and both east and west of Ellsworth Avenue (also called "Decker Road" in this EIR and its associated Technical Appendices) totaling approximately 58.6 acres. The Building D Site is located on approximately 37.1 acres east of Ellsworth Street and the Building E Site is located on approximately 21.5 acres west of Ellsworth Street. Both properties are collectively referred to as the "Project site." For purposes of evaluation herein, the two properties are referred to individually as the "Building D Site" and the "Building E Site."

The information and analysis presented in this Subsection is based on several site-specific biological technnical reports.

The biological technical reports prepared for the Building D Site include the following:

- "Final Draft General MSHCP Habitat Assessment, Regulatory Constraints Analysis, and Consistency Analysis for the 37.08 Acre Decker I Parcels Project Site, Unincorporated Western Riverside County, California," prepared by Cadre Environmental (herein "Cadre"), dated April 28, 2015, and appended to this EIR as *Technical Appendix C1* (Cadre, 2015a).

- "MSHCP Focused Burrowing Owl Surveys for the 37.08 Acre Decker Parcels I Project Site, Unincorporated Western Riverside County, California," prepared by Cadre, dated April 28, 2015, and appended to this EIR as *Technical Appendix C2* (Cadre, 2015b).

- "Jurisidictional Delineation Parcel Map No. 36950, Planning Case No. 36950 (GPA 01151, EA 42802, CFG 06184, CZ 07872)," prepared by Hernandez Environmental Services (herein "HES"), dated August 2015, and appended to this EIR as *Technical Appendix C3* (HES, 2015a).

- "Determination of Biologically Equivalent or Superior Preservation, Parcel Map No. 36950, Plot Plan No. 25838 (GPA 01151, EA 42802, CFG 06184, CZ 07872)," prepared by HES, dated July 2016, and appended to this EIR as T*echnical Appendix C7* (HES, 2016a).

The biological technical reports prepared for the Building E Site include the following:

- "Habitat Assessment Update for Parcel Map No. 36962," prepared by HES, dated February 10, 2017 and appended to this EIR as *Technical Appendix C4*. (HES, 2017b)

- "Burrowing Owl Survey Report for Decker Parcels II," prepared by HES, dated April 28, 2015, and appended to this EIR as *Technical Appendix C5* (HES, 2015c).

- "Jurisdictional Delineation Update for Parcel Map No. 36962", prepared by HES, dated February 10, 2017, and appended to this EIR as *Technical Appendix C6* (HES, 2017c).

- "Determination of Biologically Equivalent or Superior Preservation Parcel Map No. 36962, Plot Plan No. 25837 (GPA 01151, EA 42802, CFG 06184, CZ 07872, LLA 05524)", prepared by HES, dated December 2015 (Revised February 2017), and appended to this EIR as *Technical Appendix C8* (HES, 2017a)

Refer to *Technical Appendices C1* through *C8* for detailed descriptions of the field survey dates, scopes of study, and research and survey methodologies used for each report.

4.4.1 EXISTING CONDITIONS

A. Habitat Classifications and Sensitive Plant Communities

1. Building D Site

The plant communities and habitat classifications observed on the Building D Site were documented by Cadre during their field surveys on August 21 and August 25, 2014 as: Disturbed (31.04 acres), Gravel Road/Splay (5.36 acres), Structure (0.37 acres), Non-Native Olive Trees (0.22 acres), Peruvian Pepper Trees (0.07 acres), and Mexican Palo Verde Trees (0.02 acres). None of these habitats are considered sensitive plant communities. (Cadre, 2015a, pp. 8-9) Refer to Figure 4.4-1, *Building D Site Biological Resources*, for an exhibit showing the distribution of the habitat communities and other biological resources present on the Building D Site.

2. Building E Site

The plant communities and habitat classifications observed on the Building E Site were documented by HES during their field survey on December 19, 2014 as: Disturbed Non-Native Vegetation Habitat (20.43 acres), Disturbed Non-Vegetated Habitat (0.67 acres), and Granitic Rock Outcrops (0.31 acres). In addition, HES documented a 0.11-acre swale dominated by upland plant species. None of these habitats are considered sensitive plant communities. (HES, 2017b, pp. 2-3) Refer to Figure 4.4-2, *Building E Site Biological Resources*, for an exhibit showing the distribution of the habitat communities and other biological resources present on the Building E Site.

B. Sensitive Plant Species

Neither the Building D Site nor the Building E Site occur within a predetermined Survey Area for Western Riverside County Multiple Species Habitat Conservation Program (MSHCP) narrow endemic plant species or for MSHCP Criteria Area plant species. Therefore, narrow endemic plant surveys are not required. Observations of sensitive plant species that Cadre and HES documented during their general biological field surveys are reported below.

1. Building D Site

One special-status plant species, paniculate tarplant (*Deinandra paniculata*), was detected on the Building D Site in 2014, with over 1,000 paniculate tarplant individuals present on the property as estimated by Cadre. Because Cadre had indicated that paniculate tarplant was observed on the Building D Site in 2014 during the plant's blooming season, the plant is assumed to be present. However, as a follow-up to Cadre's 2014 site visit, in March 2016 HES visited the Building D Site specifically to look for the paniculate tarplant. At the time of the visit, the Building D Site appeared to have been recently disced (within the last 3 months) and new plants other than paniculate tarplant were starting to establish. At the time of their 2016 site visit, HES did not observe paniculate tarplant on the Building D Site. It is noted that the flowering period for the tarplant is known to occur between April and November. (HES, 2016c)

Paniculate tarplant is not considered to be endangered, threatened, or rare by the USFW or the CDFW, but the species is a California Native Plant Society (CNPS) Category 4.2 species, which is a "watch list" category designed to monitor vulnerable or declining species that have limited distribution in California (i.e., naturally rare in the wild), but whose existence does not appear to be susceptible to threat. (Cadre, 2015a, pp. 14-16) Based on California Natural Diversity Database (CNDDB) records, although this species has a limited distribution throughout a broader area in California, the vulnerability or susceptibility to endangerment is low at this time; the plant is not "rare" from a statewide perspective. (CDFW, 2016, p. 44). In addition, paniculate tarplant is not an MSHCP Covered Species, nor was paniculate tarplant considered for coverage under the MSHCP. Thus, paniculate tarplant is not considered to be a sensitive species on the Project site.

2. Building E Site

No sensitive plant species were observed by HES during their field survey of the Building E Site (HES, 2017b, p. 3).

C. Sensitive Animal Species

The Building D Site and Building E Site occur within a Western Riverside County MSHCP predetermined Survey Area for the western burrowing owl *(Athene cuncicularia*). Results of surveys conducted for this species are provided below.

1. Building D Site

A single burrowing owl was recorded on the Building D Site in 2006. Based on this historic observation and the presence of suitable habitat documented during Cadre's habitat assessment, four (4) focused surveys were conducted by Cadre on August 28, August 29, August 30, and August 31, 2014. Cadre documented suitable habitat throughout the Building D Site and a concentration of potential burrow structures within or near rock outcrops. In addition, a single adult burrowing owl was detected foraging and utilizing a network of burrow sites within the Building D Site. (Cadre, 2015b, pp. 2, 6, and 8)

The Building D Site does not occur within a predetermined Survey area for amphibian or mammal species; however, two (2) San Diego black-tailed jackrabbit individuals, a CDFW California Species of Concern (CSC), were identified by Cadre on the Building D Site during their general biological field surveys. (Cadre, 2015a, p. 16) A CSC is an administrative designation applied by the CDFW that carries no formal legal status. The CDFW's intent of designating CSCs is to focus attention on animals at conservation risk. The San Diego black-tailed jackrabbit is a Western Riverside County MSHCP Covered Species.

2. Building E Site

Based on the historic observation of a single burrowing owl on the adjacent Building D Site, and the observation of suitable habitat on the Building E Site during the HES habitat assessment conducted on December 19, 2014, four focused burrowing owl surveys were conducted by HES on March 29, April 9, April 19, and April 28, 2015. HES checked and recorded 65 burrows, the majority of which were made by small mammals and appeared to be active. A single burrowing owl was observed outside of its burrow in the north central portion of the Building E Site. In addition, an owl pellet was found on a rock used for perching which was located in the northeastern portion of the Building E Site which led HES to determine that the Building E Site also is used by burrowing owl to forage. (HES, 2017b, pp. 3-4)

D. Migratory Nesting Birds and Raptors

1. Building D Site

As documented by Cadre during their field survey of the Building D Site, the property contains Non-Native Olive trees, Peruvian Pepper trees, and Mexican Palo Verde trees, all of which could provide habitat for migratory birds or raptors for nesting. No nests were reported at the time of the field surveys. (Cadre, 2015a, pp. 8-9)

2. Building E Site

As documented by HES during their field reconnaissance of the Building E Site, the property contains trees and shrubs that can be used by migratory birds or raptors for nesting. In addition, shrubs and an area adjacent to the western property boundary contain habitat for nesting birds. No nests were reported on the Building E Site at the time of the field surveys. (HES, 2017b, p. 4)

E. Jurisdictional Wetlands and Waters

1. Building D Site

On October 3, 2014 HES conducted a field survey of the Building D Site to delineate potential jurisdictional drainages and potential wetland resources associated with jurisdictional drainages. HES observed one (1) ephemeral drainage feature dominated by upland plant species, encompassing a total area of 0.09-acre (approximately 677 feet in length). HES observed the drainage feature to be the remnants of a historical feature that previously conveyed water. The upstream terminus of the drainage was created by a man-made berm and Ellsworth Street, which impedes downstream flows from upstream hydrologic sources. Flows from hydrologic features upstream of the drainage feature flow north on Ellsworth Street and east on Oleander Avenue, away from the Building D Site. The on-site drainage feature contains no signs of recent hydrologic flow and periodic maintenance of Ellsworth Street keeps the feature inactive. HES also observed a large stormwater inlet located on the northeast corner of the Building D Site; however, no defined bed, bank, or channel was observed to be connected to the inlet. HES concluded that this stormwater inlet collects flood waters from upland sheet flow during large storm events. (HES, 2015a, p. 9)

HES determined that the 0.09-acre drainage feature located on the Building D Site does not connect to any jurisdictional stream upstream or downstream of the Building D Site and is an isolated drainage feature. HES observed that the main hydrologic flow was cut-off upstream of the drainage feature and appears to be mainly sheet flow, which ponds in the lower depressional areas of the Building D Site during storm events. The depressional areas were evaluated by HES for wetland features and no wetland features were identified. HES concluded that the depressional features rarely receive water and ponding within these areas does not occur long enough to form hydric soils, or allow the colonization of hydrophytic plants. HES concluded that the drainage inlet located in the northeast corner of the Building D Site was most likely installed to collect flows during these large storm events. (HES, 2015a, p. 10) The United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) defines a "hydric soil" as a soil that formed under conditions of saturation, flooding or ponding long enough during the growing season to develop anaerobic conditions in the upper part (USDA NRCS, 2015). No vernal pools are present.

Because the depressional areas contained no hydrophytic vegetation and the soils were not characterized as wetland soils, HES determined that the Building D Site contains no wetlands or vernal pools as defined by the 1987 Corps of Engineers Wetland Delineation Manual. In addition, HES concluded that the Building D Site contains no "waters of the United States" under federal jurisdiction. The drainage feature is an isolated, remnant feature which receives no hydrologic flow. It consists of a shallow feature in the landscape that may convey water across upland areas during and following storm events. The drainage feature is not a tributary and does not have a significant nexus (biological, chemical, or physical connection) to a traditional navigable "waters of the United States." (HES, 2015a, p. 10)

Although the 0.09-acre (677 linear feet) drainage feature is an isolated, remnant drainage feature which rarely receives hydrologic flow, because the bank of the drainage feature is dominated by upland plant species, it is considered a CDFW jurisdictional drainage feature. (HES, 2015a, p. 10) Additionally, because the feature is considered an ephemeral Water of the State, discharges to the drainage feature fall under the jurisdiction of the RWQCB. (HES, 2015a, p. 10).

2. Building E Site

On February 24, 2015 HES performed a jurisdictional delineation on the Building E Site to delineate potential jurisdictional drainages and potential wetland resources associated with jurisdictional drainages. HES observed the Building E Site to contain an approximately 0.11-acre drainage feature vegetated with non-native upland plant species. The drainage feature appears to be a remnant of a historical drainage feature that previously conveyed water. The upstream off-site portion of the drainage feature was created by a man-made passage that appears to reach under the existing off-site EMWD water tank. At the off-site upstream point, the swale forks and another swale continues east for approximately 500 feet where it terminates. On the Building E Site, the ephemeral drainage feature flows from west to east for approximately 690 feet. The drainage feature terminates approximately 120 feet west of the Building E Site boundary and Ellsworth Street. HES observed that the drainage feature appears to rarely convey water. At the point of termination, the drainage feature no longer contains a definable bed, bank, or channel. Although the drainage feature is an isolated, remnant drainage feature that appears to rarely receive hydrologic flow, the feature is considered a CDFW jurisdictional drainage feature. (HES, 2017c, p. 3)

HES concluded that the Building E Site contains no "waters of the United States" under federal jurisdiction. The drainage feature does not exhibit an ordinary high water mark (OHWM) and the drainage is an isolated, remnant feature which receives no hydrologic flow. It contains a shallow feature in the landscape that may convey water across upland areas during storm events. The drainage feature is not a tributary and it does not have a significant nexus (biological, chemical, or physical connection) to traditional navigable "waters of the United States."

The Building E Site contains no "waters of the United States." However, the Building E Site contains approximately 0.11 acres (690 linear feet) of ephemeral waters of the State. Discharges to the drainage feature have the potential to result in impacts to water quality of State waters. Therefore, the RWQCB could potentially require review of the Building E Site under the Porter Cologne Water Quality Control Act to insure the Project conforms to the State water quality requirements. (HES, 2017c, p. 3)

F. Riparian/Riverine Resources

1. Building D Site

The Building D Site contains one ephemeral drainage feature that meets the MSHCP definition of a riparian/riverine feature only because it receives fresh water flow during all or a portion of the year. The drainage lacks any semblance of riparian vegetation structure typically provided by riparian tree species such as cottonwood (*Populas sp.*), valley oak (*Quercus lobata*), sycamore (*Platanus*

racemosa), and willow (*Salix spp.*). No additional riparian/riverine areas or vernal pools were identified on the Building D Site during the field surveys. (HES, 2016a, pp. 6-7)

During the field surveys, a habitat assessment was conducted for the required MSHCP riparian/riverine wildlife species. As discussed above, the drainage feature lacks a riparian vegetation component and does not support suitable habitat for least Bell's vireo, southwestern willow flycatcher, or western yellow-billed cuckoo. Due to the absence of suitable habitat, no focused surveys were required for these avian species. Additionally, the Building D Site does not support vernal pool or other seasonal wetland habitats. Therefore, focused surveys for Riverside fairy shrimp, Santa Rosa Plateau fairy shrimp, and vernal pool fairy shrimp also were not required. (HES, 2016b, p. 7)

2. Building E Site

The Building E Site contains one small, isolated ephemeral drainage feature that meets the MSHCP definition of a riparian/riverine feature only because it receives fresh water flow during all or a portion of the year. The drainage feature lacks any semblance of riparian vegetation structure typically provided by riparian tree species. No additional riparian/riverine areas or vernal pools were identified on the Building E Site during the field survey. (HES, 2017a, p. 6)

Plant species observed by HES were upland species. HES observed that the drainage feature appears to be a remnant of a historical drainage that previously conveyed water. The drainage feature terminates approximately 120 feet west of Ellsworth Street. At the point of termination, the drainage feature no longer contains a definable bed, bank, or channel. The drainage feature has no downstream connection, as it terminates prior to reaching Ellsworth Street. (HES, 2017a, p. 6)

During the field survey, a habitat assessment was conducted for the required MSHCP riparian/riverine wildlife species. HES determined that the drainage feature does not support suitable habitat for least Bell's vireo, southwestern willow flycatcher, or western yellow-billed cuckoo. Due to the absence of suitable habitat, no focused surveys were required for these avian species. Additionally, the Building E Site does not support vernal pool or other seasonal wetland habitats. Therefore, focused surveys for Riverside fairy shrimp, Santa Rosa fairy shrimp, and vernal pool fairy shrimp were also not required.(HES, 2017a, p. 6)

4.4.2 REGULATORY SETTING

The Project site is subject to State and federal regulations associated with a number of regulatory programs. Provided below is an overview of applicable federal, State, and regional laws, regulations, and requirements that are applicable to the Project site. Refer to *Technical Appendices C1* through *C8* for a detailed summary of applicable regulations related to biological resources.

A. Federal Endangered Species Act

The Federal Endangered Species Act of 1973 (FESA) provides definitions for endangered species and threatened species of the U.S. Under provisions of Section 9(a)(1)(B) of the FESA it is unlawful to

"take" any listed species. "Take" is defined in Section 3(18) of FESA: "...harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Further, the USFWS, through regulation, has interpreted the terms "harm" and "harass" to include certain types of habitat modification that result in injury to, or death of species as forms of "take." These interpretations, however, are generally considered and applied on a case-by-case basis and often vary from species to species. In a case where a property owner seeks permission from a federal agency for an action that could affect a federally listed plant and animal species, the property owner and agency are required to consult with USFWS. Section 9(a)(2)(b) of the FESA addresses the protections afforded to listed plants.

Federal authorizations of impacts to or incidental take of a listed species by a private individual or other private entity can be granted in one of the following ways:

- Section 7(a)(2) of the FESA of 1973, as amended (16 U.S.C. 1536(a)(2) stipulates that any federal action that may affect a species listed as threatened or endangered requires a formal consultation with USFWS to ensure that the action is not likely to jeopardize the continued existence of the listed species or result in destruction or adverse modification of designated critical habitat.

- In 1982, the FESA was amended to give private landowners the ability to develop Habitat Conservation Plans (HCPs) pursuant to Section 10(a) of the FESA. Upon development of an HCP, the USFWS can issue incidental take permits for listed species where the HCP specifies at minimum, the following: (1) the level of impact that will result from the taking, (2) steps that will minimize and mitigate the impacts, (3) funding necessary to implement the plan, (4) alternative actions to the taking considered by the applicant and the reasons why such alternatives were not chosen, and (5) such other measures that the Secretary of the Interior may require as being necessary or appropriate for the plan.

B. State of California Endangered Species Act

California's Endangered Species Act (CESA) provides definitions for endangered species, threatened species, and candidate species of California. Listed endangered and threatened species are protected by the CESA and candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Game Commission. Article 3, Sections 2080 through 2085, of the CESA address the taking of threatened, endangered or candidate species by stating "No person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof that the commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided." Under the CESA, "take" is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Exceptions authorized by the state to allow "take" require permits or memoranda of understanding and can be authorized for endangered species, threatened species, or candidate species for scientific, educational, or management purposes and for

take incidental to otherwise lawful activities. Sections 1901 and 1913 of the California Fish and Game Code provide that notification is required prior to disturbance.

State authorizations of impacts to or incidental take of a listed species by a private individual or other private entity can be granted as follows:

- Sections 2090-2097 of the California Endangered Species Act (CESA) require that the state lead agency consult with CDFW on projects with potential impacts on state-listed species. These provisions also require CDFW to coordinate consultations with USFWS for actions involving federally listed as well as state-listed species. In certain circumstances, Section 2080.1 of the California Fish and Game Code allows CDFW to adopt the federal incidental take statement or the 10(a) permit as its own based on its findings that the federal permit adequately protects the species under state law.

C. *Western Riverside County MSHCP*

The Western Riverside County MSHCP, a regional HCP, was adopted on June 17, 2003, and an Implementing Agreement (IA) was executed between the USFWS, CDFW, and participating entities including the County of Riverside. The intent of the Western Riverside County MSHCP is to preserve native vegetation and meet the habitat needs of multiple species, rather than focusing preservation efforts on one species at a time. As such, the Western Riverside County MSHCP is intended to streamline review of individual projects with respect to the species and habitats addressed in the Western Riverside County MSHCP and to provide for an overall Conservation Area that would be of greater benefit to biological resources than would result from a piecemeal regulatory approach. The Western Riverside County MSHCP provides coverage (including take authorization for listed species) for special-status plant and animal species, as well as mitigation for impacts to sensitive species.

Through agreements with the USFWS and the CDFW, the Western Riverside County MSHCP designates 146 special-status animal and plant species that receive some level of coverage under the plan. Of the 146 "Covered Species" designated under the Western Riverside County MSHCP, the majority of these species have no additional survey/conservation requirements. In addition, through compliance with the Western Riverside County MSHCP, the MSHCP provides mitigation for project-specific impacts to Covered Species so that the impacts would be reduced to below a level of significance pursuant to CEQA.

The Project site is not located within an MSHCP Criteria Cell, Area Plan Subunit, or Linkage, which means that the property is not targeted by the MSHCP for habitat conservation. (RCIT, 2015) (Cadre, 2015a, p. 4) (HES, 2015b, p. 9) Proposed activities outside the MSHCP Criteria Area are required to be reviewed for consistency with the Protection of Species Associated with Riparian/Riverine Areas and Vernal Pool guidelines, the Protection of Narrow Endemic Plant Species guidelines, and the Additional Survey Needs and Procedures included in Sections 6.1.2, 6.1.3 and 6.3.2, respectively, of the MSHCP document (County of Riverside, 2003).

Although the Project site is not located within any Criteria Cells, Narrow Endemic Plant Species Survey Areas, or proposed Conservation Areas, and is not subject to the focused species surveys associated with those areas, all projects within the MSHCP area require evaluation of potential impacts on riparian/riverine areas and vernal pools, and the protected species associated with those habitats. Riparian/riverine areas and vernal pools are defined in the MSHCP as follows:

- Riparian/riverine areas include lands that contain habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from a nearby fresh water source, or areas with fresh water flow during all or a portion of the year.

- Vernal pools are seasonable wetlands that occur in depression areas that have wetland indicators of all three parameters (soils, vegetation, and hydrology) during the wetter portion of the growing season. Obligate hydrophytes and facultative wetland plants species are normally dominant during the wetter portion of the growing season, while upland species (annuals) may be dominant during the drier portion of the growing season. (HES, 2016a, p. 4)

As previously indicated, the Project site does not contain vernal pools but does contain riparian/riverine areas, although these areas do not support habitat for riparian birds (HES, 2016b, pp. 4-5).

The Project site is located within the Western Riverside County MSHCP burrowing owl survey area, which requires site-specific surveys for the species because it is designated as a "Covered Species not yet adequately conserved" (Volume I, Section 6.1.2 of the Western Riverside County MSHCP document). The MSHCP's Urban/Wildlands Interface Guidelines are intended to address indirect effects associated with locating development in proximity to the MSHCP Conservation Area, which do not apply to the Project site because the site is not located in the immediate proximity of a Conservation Area.

Ordinance No. 810 requires the payment of a per-acre mitigation fee to disturb property located in the MSCHP coverage area.

D. Stephens' Kangaroo Rat Habitat Conservation Plan

The Stephens' Kangaroo Rat HCP is a comprehensive, multi-jurisdictional HCP focusing on the conservation of the endangered Stephens' Kangaroo Rat and its habitat. The Stephens' Kangaroo Rat HCP was adopted in August 1990 and an Implementing Agreement (IA) was executed between the USFWS, CDFW, and participating entities (including the County of Riverside). The Stephens' Kangaroo Rat HCP provides for the permanent establishment, mitigation, and monitoring of a reserve network for the Stephens' Kangaroo Rat. The Project site is not located within the Stephens' Kangaroo Rat survey area but is located within the Stephens' Kangaroo Rat mitigation fee area.

Ordinance No. 633 is an ordinance of the County of Riverside pertaining to the Stephens' Kangaroo Rat HCP. (Riverside County, 2003e) The ordinance requires the payment of a per-acre mitigation fee to disturb property located in the Stephens' Kangaroo Rate HCP coverage area.

E. Regulations Related to Jurisdictional Waters and Wetlands

1. United States Army Corps of Engineers

Pursuant to Section 404 of the Federal Clean Water Act (CWA), the U.S Army Corps of Engineers (ACOE) regulates the discharge of dredged and/or fill material into waters of the United States. The term "waters of the United States" is defined in ACOE regulations at 33 CFR Part 328.3(a) and generally includes waters used in interstate or foreign commerce; all interstate waters and interstate wetlands; waters that would adversely affect foreign commerce in the instance of their destruction; impoundments of waters of the United States; or tributaries of the aforementioned waters. The term "wetlands" (a subset of "waters of the United States") is defined in 33 CFR 328.3(b) as that inundated or saturated by surface or ground water at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions. In the absence of wetlands, the limits of ACOE jurisdiction in non-tidal waters, such as intermittent streams, extend to the ordinary high water mark (OHWM) which is defined in 33 CFR 328.3(e). Two legal decisions that clarified the definition of USACE jurisdiction are "Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al." and "Rapanos v. United States and Carabell v. United States."

2. California Department of Fish and Wildlife

Pursuant to Division 2, Chapter 6, Section 1602 of the California Fish and Wildlife Code, the CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife. CDFW requires an entity to notify CDFW of any proposed activity that may modify a river, stream, or lake if the activity will:

- Substantially divert or obstruct the natural flow of any river, stream, or lake;
- Substantially change or use any material from the bed, channel, or bank if, any river, stream or lake; or
- Deposit or dispose of debris, waste, or other material containing crumbled, flakes, or ground pavement where it may pass into any river, stream or lake.

This notification requirement applies to any work undertaken in or near a river, stream, or lake that flows at least intermittently through a bed or channel. It may also apply to work undertaken within the floodplain of a body of water (CDFW, 2014a).

3. Regional Water Quality Control Board

The Clean Water Act (CWA) Section 401 requires federal agencies to obtain a Water Quality Certification from the RWQCB before issuing permits that would result in increased pollutant loads to a water body. A Section 401 certification can be issued only if increased pollutant loads would not cause or contribute to exceedances of water quality standards. Subsequent to the legal decision in

"Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al.," the Chief Counsel for the State Water Resources Control Board issued a memorandum that addressed the effects of that decision on the Section 401 Water Quality Certification Program.

> *"California's right and duty to evaluate certification requests under section 401 is pendant to (or dependent upon) a valid application for a section 404 permit from the Corps, or another application for a federal license or permit. Thus if the Corps determines that the water body in question is not subject to regulation under the COE's 404 program, for instance, no application for 401 certification will be required…"*

4.4.3 BASIS FOR DETERMINING SIGNIFICANCE

Environmental impacts to biological resources are assessed using impact significance threshold criteria, which reflect the policy statement contained in CEQA, § 21001(c) of the California Public Resources Code. Accordingly, the State Legislature has established it to be the policy of the State of California to:

> *"Prevent the elimination of fish or wildlife species due to man's activities, ensure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities..."*

In the development of thresholds of significance for impacts to biological resources, CEQA provides guidance primarily in § 15065, Mandatory Findings of Significance, and the CEQA Guidelines, Appendix G, Environmental Checklist Form. CEQA Guidelines § 15065(a) states that a project may have a significant effect where:

> *"The project has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or wildlife community, reduce the number or restrict the range of an endangered, rare, or threatened species"*

Therefore, for the purpose of analysis in this EIR, the proposed Project would result in a significant impact to biological resources if the Project or any Project-related component would:

Wildlife and Vegetation

a) *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state conservation plan; or*

b) *Have a substantial adverse effect, either directly or through habitat modifications, on any endangered, or threatened species, as listed in Title 14 of the California Code of Regulations (Sections 670.2 or 670.5) or in Title 50, Code of Federal Regulations (Sections 17.11 or 17.12); or*

c) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U. S. Wildlife Service; or

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites; or

e) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U. S. Fish and Wildlife Service; or

f) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means; or

g) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

4.4.4 IMPACT ANALYSIS

Wildlife and Vegetation
Threshold a) Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state conservation plan?

Two adopted HCPs apply to the Project site. The Project site is located in the Stephens' Kangaroo Rat HCP and the Western Riverside County MSHCP.

The Riverside County Municipal Code contains provisions for the protection of the Stephens' Kangaroo Rat pursuant to the Stephens' Kangaroo Rat HCP (refer to Riverside County Ordinance No. 633). The Project site is not located within an identified reserve area for the Stephens' Kangaroo Rat and the species has a low to moderate potential to occur on the Project site. Regardless, because the Project site is located within the HCP boundary, the Project Applicant is required to pay a mandatory mitigation fee pursuant to Riverside County Ordinance No. 663, which requires a per-acre mitigation fee payment to assist the County in implementing the Stephens' Kangaroo Rat HCP. With mandatory compliance with standard regulatory requirements (i.e., payment of the development mitigation fee), the proposed Project would not conflict with any County policies or ordinances related to the Stephens' Kangaroo Rat HCP. Impacts would be less than significant.

The Project site also is subject to the Western Riverside County MSHCP. According to Riverside County GIS and the MSHCP Conservation Summary Report Generator, the Project site is not located within any MSHCP Criteria Cells; thus, the subject property is not targeted for conservation under the MSHCP. The nearest area subject to a MSHCP Criteria Cell is located approximately 1.2 miles south

of the Project site (Cell No. 2334). (RCIT, 2015) (Riverside County, 2015a) Regardless, because the Project site is located in the MSHCP area, the Project Applicant is required to pay a local development impact and mitigation fee pursuant to County Ordinance No. 810, which requires a per-acre local development mitigation fee payment to assist the County in implementing the MSHCP.

In addition, development projects such as the proposed Project that are proposed outside the MSHCP Criteria Area are required to be reviewed for consistency with several MSHCP provisions, including the Protection of Species Associated with Riparian/Riverine Areas and Vernal Pool guidelines, the Protection of Narrow Endemic Plant Species guidelines, and the Additional Survey Needs and Procedures included in Sections 6.1.2, 6.1.3 and 6.3.2 of the MSHCP document, respectively (County of Riverside, 2003). Each of these provisions are addressed below as they pertain to the Building D Site and the Building E Site. As concluded below, the Project would not conflict with any provisions of the MSCHP.

Pursuant to Section 6.1.2 of the MSHCP, because the proposed Project would impact a riparian/riverine area on both the Building D Site and the Building E Site, as described below, a Determination of Biologically Equivalent or Superior Preservation (DBESP) analysis was required and subsequently prepared for both the Building D Site and the Building E Site. All projects within the MSHCP area are required to prepare a DBESP when project alternatives that would avoid sensitive riparian/riverine resources are not feasible. The goal of the DBESP is to demonstrate that, with the implmentation of the proposed Project's design features and mitigation measures, the proposed Project would result in an alternative that is biologically equivalent or superior to the impacted riparian/riverine resoures, and to ensure that any lost functions and values of habitat for species covered by MSHCP are replaced. The DBESP reports are contained as *Technical Appendices C7 and C8* to this EIR. (HES, 2016a, p. 2) (HES, 2017a)

1. Building D Site

The Building D Site is not located in a MSHCP special linkage area, nor is the Building D Site located within the Criteria Area Species Survey Area (CASSA) for amphibian species, mammals, or narrow endemic plants (pursuant to MSHCP Section 6.3.2). Thus, no impact regarding these MSHCP provisions would occur.

The Building D Site is located within the CASSA for the western burrowing owl, pursuant to MSHCP Section 6.3.2. (Riverside County, 2015a). Therefore, four focused surveys were conducted by Cadre on August 28, August 29, August 30, and August 31, 2014. Cadre observed a single (1) adult burrowing owl foraging and utilizing a network of burrow sites within the Building D Site. (Cadre, 2015b, pp. 2, 6, and 8) Given the observed occurrences of the species and the migratory nature of the species, it is possible that burrowing owl could be present on the Building D Site at the time construction activities commence, resulting in potential impacts to the species. If burrowing owls are located on the Building D Site prior to ground-disturbing activities on the Building D Site, the impact would be significant. As outlined in the MSHCP, regardless if burrowing owl are detected during onsite during focused survey efforts, a 30-day preconstruction survey (condition of approval) is

required to be conducted prior to initiation of construction to ensure protection for the species and compliance with the conservation goals as outlined in the MSHCP. (HES, 2016a, p. 8) Riverside County Ordinance No. 810 requires the payment of a per-acre mitigation fee to disturb property located in the MSCHP coverage area, which would adequately offset Project-related impacts to burrowing owl habitat, but not to individuals if any burrowing owl individuals are present. Mitigation for the potential impacts to individual burrowing owls is provided in Subsection 4.4.7, below.

The Building D Site is not located within the Narrow Endemic Plant Species Survey Area (NEPSSA) and is not subject to focused surveys for special-status plants (pursuant to MSHCP Section 6.3.2), The Building D Site is also not subject to the MSHCP Urban/Wildland Interface Guidelines (pursuant to MSHCP Section 6.1.4), because the Building D Site is not located near any MSHCP conservation areas. Thus, no impacts regarding these MSHCP provisions would occur.

The Building D Site contains 0.09-acre (677 linear feet) of an ephemeral drainage feature dominated by upland plant species that qualifies as a MSHCP riverine resource because it receives fresh water flow during all or a portion of the year (HES, 2015a, p. 4). As required by the MSHCP, a Determination of Biologically Equivalent or Superior Preservation (DBESP) analysis was required and is attached to this EIR as T*echnical Appendix C7*. The proposed Project would permanently impact the entire 0.09 acre (677 linear foot) on-site ephemeral drainage, which is a significant impact requiring mitigation. While the drainage feature meets the definition of a riparian/riverine area according to the MSHCP, the channel lacks a riparian vegetation component and does not support suitable habitat for least Bell's vireo, southwestern willow flycatcher, or western yellow-billed cuckoo. The Building D Site does not contain vernal pools, and as such, proposed development on the Building D Site would not result in impacts to Riverside fairy shrimp, Santa Rosa Plateau fairy shrimp, and vernal pool fairy shrimp. (HES, 2016a, p. 8)

In conclusion, development proposed on the Building D Site would result in a significant direct and cumulatively considerable impact associated with compliance to the Western Riverside County MSHCP due to the potential to impact western burrowing owl individuals if the species is present on the site when construction activities commence. In addition, the Building D Site Project would result in the loss of an ephemeral drainage (0.09-acre (677 linear feet)) which qualifies as a MSHCP riverine resource and which requires compensatory mitigation to ensure the replacement of any lost functions and values as it relates to plant and wildlife species covered by the MSHCP.

2. Building E Site

Similar to the Building D Site, the Building E Site is not located in a MSHCP special linkage area, nor is the Building E Site located within the CASSA for amphibian species, mammals, or narrow endemic plants (pursuant to MSHCP Section 6.3.2). Thus, no impact regarding these MSHCP provisions would occur.

The Building E Site is located within the CASSA for the western burrowing owl, pursuant to MSHCP Section 6.3.2. (Riverside County, 2015a). Therefore, four focused surveys were conducted by HES

on March 29, April 9, April 19, and April 28, 2015. A single burrowing owl was observed outside of its burrow in the north central portion of the Building E Site and there was evidence that the species uses the site to forage. (HES, 2017b, pp. 4-5) Given the observed occurrences of the species and the migratory nature of the species, it is possible that burrowing owl could be present on the Building E Site at the time construction activities commence, resulting in potential impacts to the species. If burrowing owls are located on the Building E Site prior to ground-disturbing activities on the Building E Site, the impact would be significant. Riverside County Ordinance No. 810 requires the payment of a per-acre mitigation fee to disturb property located in the MSCHP coverage area, which would adequately offset Project-related impacts to burrowing owl habitat, but not to individuals if any burrowing owl individuals are present. Mitigation for the potential impacts to individual burrowing owls is provided in Subsection 4.4.7, below.

The Building E Site is not located within the Narrow Endemic Plant Species Survey Area (NEPSSA) and is not subject to focused surveys for special-status plants (pursuant to MSHCP Section 6.3.2), The Building E Site also is not subject to the MSHCP Urban/Wildland Interface Guidelines (pursuant to MSHCP Section 6.1.4), because the Building E Site is not located near any MSHCP conservation areas. Thus, no impacts regarding these MSHCP provisions would occur.

The Building E Site contains one small, isolated ephemeral drainage feature that does not support riparian vegetation. There is no riparian/riverine habitat within the Building E Site. No depressions or areas where water could pool were observed within the Building E Site. No vernal pools occur within the Building E Site and there is no suitable habitat for fairy shrimp to occur. None of the riparian/riverine species listed in Section 6.1.2 of the MSHCP were found on the Building E Site. (HES, 2017b, p. 5)

The Building E Site contains 0.11-acre (690 linear feet) of an isolated ephemeral drainage feature that flows from west to east across the property. (HES, 2017c, p. 3) The drainage feature is vegetated with non-native upland plant species. Development of the Building E Site as proposed by the Project would permanently impact 0.11-acre (690 linear feet) of ephemeral waters of the State, which is a significant impact requiring mitigation.

During the field survey, a habitat assessment was conducted for the required MSHCP riparian/riverine wildlife species. HES determined that the drainage feature does not support suitable habitat for least Bell's vireo, southwestern willow flycatcher, or western yellow-billed cuckoo (HES, 2017a, p. 7). Due to the absence of suitable habitat, no focused surveys were required for these avian species. Additionally, the Building E Site does not support vernal pool or other seasonal wetland habitats. Therefore, focused surveys for Riverside fairy shrimp, Santa Rosa fairy shrimp, and vernal pool fairy shrimp were also not required.

In conclusion, development proposed on the Building E Site would result in a significant direct and cumulatively considerable impact associated with compliance to the Western Riverside County MSHCP due to the potential to impact western burrowing owl individuals if the species is present on

the site when construction activities commence. In addition, the Building E Site Project would result in the loss of an ephemeral drainage (0.11-acre (690 linear feet)) which qualifies as a MSHCP riverine resource and which requires compensatory mitigation to ensure the replacement of any lost functions and values as it relates to plant and wildlife species covered by the MSHCP.

Wildlife and Vegetation	
Threshold b)	***Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any endangered, or threatened species, as listed in Title 14 of the California Code of Regulations (Sections 670.2 or 670.5) or in Title 50, Code of Federal Regulations (Sections 17.11 or 17.12)?***
Threshold c)	***Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U. S. Wildlife Service?***

The list of plants designated by the Fish and Game Commission as endangered, threatened, or rare is contained in the California Code of Regulations, Title 14, as Section 670.2. Threatened, Endangered, or Candidate Species includes all species listed by the California Fish and Game Commission (see Title 14 CCR, Section 670.5), and by the federal government under the Endangered Species Act (ESA). Title 50 Code of Federal Regulations Section 17.11 covers endangered and Threatened Wildlife. Title 50 Code of Federal Regulations covers Endangered and Threatened Plants.

A. Sensitive Plant Communities and Plant Species

The Building D Site and the Building E Site do not occur within a predetermined Survey Area for MSHCP narrow endemic plant species or for MSHCP area plant species (Cadre, 2015a, pp. 14-16) (HES, 2015b, p. 8). No sensitive plant communities were observed on the Building D Site or the Building E Site during biological field surveys. However, one special-status plant species, paniculate tarplant (*Deinandra paniculata*), was detected on the Building D Site. As discussed in Subsection 4.4.1, paniculate tarplant is listed as CNPS California Rare Plant Rank (CRPR) 4 category which is a "watch list" designed to monitor vulnerable or declining species which are not rare, threatened, or endangered in California. (CNPS, 2015) Although paniculate tarplant is not a MSHCP-covered species, because the plant species is not rare, threatened, or endangered, because its range is sufficiently broad, because the CNPS listing for the species is relatively low for the species, and because habitat for this species is preserved elsewhere within the MSHCP boundaries, the loss of the species on the Project site is considered less than significant. (HES, 2016c) Loss of individual plants on the Project site would not threaten the species as a whole. The Project would not have a substantial adverse effect, either directly or through habitat modifications, on any other endangered or threatened species, candidate, sensitive, or special status species. Thus, impacts would be less than significant.

B. Sensitive Wildlife Species

The Building D Site and Building E Site occur within a Western Riverside County MSHCP predetermined Survey Area for the western burrowing owl. Based on focused surveys conducted on the Building E Site by Cadre in 2014 and focused surveys conducted on the Building E Site by HES in 2015, a single adult burrowing owl was detected on each site. (Cadre, 2015b, pp. 2, 6, and 8) As discussed under the impact analysis for Threshold (a), if the burrowing owl is present on the Project site at the time construction activities commence, potential impacts to the species would occur; thus, the impact would be significant and require mitigation.

Although no sensitive bird species were reported on the Project site during general biological field surveys conducted on the Building D Site and the Building E Site, both properties contain trees and shrubs, which could provide habitat for migratory bird species protected under the MBTA. If active nests are present at the time the nesting habitat is removed for any MBTA protected species, impacts to active nests during the breading season would be considered a significant impact.

Wildlife and Vegetation

Threshold d) Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The Building D Site and the Building E Site do not contain any water bodies that could support fish; therefore, there is no potential for the Project as proposed on the Building D Site or the Building E Site to interfere with the movement of any resident or migratory fish.

The Project Site does not serve as an established migratory wildlife corridor, nor is it connected to an established corridor. Also, there are no wildlife nursery sites on or adjacent to the Building D Site or the Building E Site. Thus, no impact would occur. The Building D Site is bound by residential development to the south, industrial areas to the northeast and open space to the east, west, and north. I- 215 is located approximately 2,300 feet to the east of the Building D Site. The Building E Site is surrounded by human activity in the form of residences, agricultural uses, warehouses, and I-215. Therefore, the Building D Site and the Building E Site do not represent a travel route, wildlife corridor, or wildlife crossing. (Cadre, 2015a, p. 11)

Wildlife movement corridors in Western Riverside County are addressed by the conservation requirements specified in the Western Riverside County MSHCP, and the Building D Site and the Building E Site are not identified for conservation as part of the MSHCP. Accordingly, the Building D Site and the Building E Site are not considered to be part of a wildlife movement corridor. Thus, no impact would occur to the movement of any resident or migratory fish or wildlife species, established wildlife corridor, or native wildlife nursery sites as a result of implementation of the Project as proposed on the Building D Site or the Building E Site.

The Project as proposed on the Building D Site and the Building E Site has the potential to impact nesting birds if vegetation is removed during the nesting season (February 1 through August 31). Impacts to nesting birds are prohibited by the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code. With the Project's mandatory compliance with the MBTA and Mitigation Measure 4.4-2, a less-than-significant impact would occur associated with Project impacts on migratory birds.

Wildlife and Vegetation

Threshold e) ***Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U. S. Fish and Wildlife Service?***

Threshold f) ***Would the Project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?***

1. Building D Site

The proposed Project would permanently impact the 0.09-acre (677 linear foot) on-site ephemeral drainage on the Building D Site. The drainage feature meets the definition of a riparian/riverine area according to the MSHCP and in the context the impact is significant which requires mitigation. The channel lacks a riparian vegetation component, however, and does not support suitable habitat for least Bell's vireo, southwestern willow flycatcher, or western yellow-billed cuckoo. Additionally, vernal pools are not present on the Building D Site so surveys were not required for Riverside fairy shrimp, Santa Rosa Plateau fairy shrimp, and vernal pool fairy shrimp, because there is no potential for these species to be present. (HES, 2016a, p. 8)

Because the depressional areas contained no hydrophytic vegetation and the soils were not characterized as wetland soils, HES determined that the Building D Site contains no wetlands or vernal pools as defined by the 1987 Corps of Engineers Wetland Delineation Manual. In addition, HES concluded that the Building D Site contains no "waters of the United States" under federal jurisdiction. The drainage feature is an isolated, remnant feature which receives no hydrologic flow and does not provide any downstream biological resource benefits. It consists of a shallow feature in the landscape that may convey water across upland areas during and following storm events. The drainage feature is not a tributary and does not have a significant nexus (biological, chemical, or physical connection) to a traditional navigable "waters of the United States." (HES, 2015a, p. 10) Therefore, the Project as proposed on the Building D Site would not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. Refer to the jurisdictional delineation report attached to this EIR as *Technical Appendices C3.* No impact to federal wetlands or waters would occur from implementing the Project as proposed on the Building D Site.

2. Building E Site

HES concluded that the Building E Site contains no "waters of the United States" under federal jurisdiction. The drainage feature does not exhibit an ordinary high water mark (OHWM) and the drainage is an isolated, remnant feature which receives no hydrologic flow. It contains a shallow feature in the landscape that may convey water across upland areas during storm events. The drainage feature is not a tributary and it does not have a significant nexus (biological, chemical, or physical connection) to traditional navigable "waters of the United States."

Although the Building E Site contains no "waters of the United States," the Building E Site contains approximately 0.11 acres (690 linear feet) of ephemeral waters of the State. Discharges to the drainage feature have the potential to result in impacts to water quality of State waters. Therefore, the RWQCB could potentially require review of the Building E Site under the Porter Cologne Water Quality Control Act to insure the Project conforms to the State water quality requirements. (HES, 2017c, p. 3)

The Building E Site contains one small, isolated ephemeral drainage feature that meets the MSHCP definition of a riparian/riverine feature only because it receives fresh water flow during all or a portion of the year. The drainage feature lacks any semblance of riparian vegetation structure typically provided by riparian tree species. No additional riparian/riverine areas or vernal pools were identified on the Building E Site during the field survey. (HES, 2017a, p. 6) Dominant plant species observed by HES include red brome and summer mustard. HES observed that the drainage feature appears to be a remnant of a historical drainage that previously conveyed water. The drainage feature terminates approximately 120 feet west of Ellsworth Street. At the point of termination, the drainage feature no longer contains a definable bed, bank, or channel. The drainage feature has no downstream connection, as it terminates prior to reaching Ellsworth Street. (HES, 2017a, p. 6)

During the field survey, a habitat assessment was conducted for the required MSHCP riparian/riverine wildlife species. HES determined that the drainage feature does not support suitable habitat for least Bell's vireo, southwestern willow flycatcher, or western yellow-billed cuckoo. Due to the absence of suitable habitat, no focused surveys were required for these avian species. Additionally, the Building E Site does not support vernal pool or other seasonal wetland habitats. Therefore, focused surveys for Riverside fairy shrimp, Santa Rosa fairy shrimp, and vernal pool fairy shrimp were also not required, because there is no potential for these species to be present. (HES, 2017a, p. 6)

Wildlife and Vegetation
Threshold g) Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Other than the Western Riverside County MSHCP, which is addressed above under the Impact Analysis for Threshold (a), the only local policies or ordinances protecting biological resources within the Project area are County Ordinance No. 559 (Regulating the Removal of Trees) and the County's Oak Tree Management Guidelines. As discussed in Subsection 4.4.1, the Building D Site and the Building E Site do not contain oak trees. Therefore, the Riverside County Oak Tree Management

Guidelines are not applicable to the Project. As discussed in Subsection 4.4.2, Ordinance No. 559 pertains to parcels or property located above 5,000 feet in elevation. The Building D Site and the Building E Site do not reach an elevation of 5,000 feet; therefore, Ordinance No. 559 is also not applicable to the Project site. Thus, because the Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, no impact would occur as a result of implementation of the Project as proposed on the Building D Site and the Building E Site.

4.4.5 CUMULATIVE IMPACT ANALYSIS

This cumulative impact analysis considers development of the Project as proposed on the Building D Site and the Building E Site in conjunction with other development projects in the geographic area covered by the Western Riverside County MSHCP based on a summary of projections approach resulting from full General Plan buildout in Riverside County and other jurisdictions in the region within the boundaries of the Western Riverside County MSHCP.

The primary effects of the proposed Project, when considered with the build out of long range plans in the geographic area covered by the Western Riverside County MSHCP, would be the cumulative loss habitat for sensitive species. With respect to special-status species, although the habitat offered on the Project site is of substantially lesser quality than habitat that is found in designated MSHCP Criteria Cells within the geographic area covered by the Western Riverside County MSHCP, it still provides open spaces for foraging, refuge, nesting, and areas that can be used for species reproduction.

Anticipated cumulative impacts to biological resources are addressed within the Western Riverside County MSHCP cumulative study area. The Western Riverside County MSHCP, as currently adopted, addresses 146 "Covered Species" that represent a broad range of habitats and geographical areas within Western Riverside County, including threatened and endangered species and regionally- or locally-sensitive species that have specific habitat requirements and conservation and management needs. The Western Riverside County MSHCP addresses biological impacts for take of Covered Species within the MSHCP area. Impacts to Covered Species and establishment and implementation of a regional conservation strategy and other measures included in the Western Riverside County MSHCP address the federal, state, and local mitigation requirements for these species and their habitats. Specifically, Section 4.4 of the Western Riverside County MSHCP states that:

> *"The MSHCP was specifically designed to cover a large geographical area so that it would protect numerous endangered species and habitats throughout the region. It is the projected cumulative effect of future development that has required the preparation and implementation of the MSHCP to protect multiple habitats and multiple endangered species."*

It goes on to state that:

> *"The LDMF [Local Development Mitigation Fee] is to be charged throughout the Plan Area to all future development within the western part of the County and the Cities in order to*

provide a coordinated conservation area and implementation program that will facilitate the preservation of biological diversity, as well as maintain the region's quality of life."

The reason for the imposition of the Mitigation Fee over the entire region is that the loss of habitat for endangered species is a regional issue resulting from the cumulative effect of continuing development throughout all of the jurisdictions in Western Riverside County. Finally, Section 5.1 of the Western Riverside County MSHCP states that:

"It is anticipated that new development in the Plan Area will fund not only the mitigation of the impacts associated with its proportionate share of regional development, but also the impacts associated with the future development of more than 332,000 residential units and commercial and industrial development projected to be built in the Plan Area over the next 25 years."

As the construction of buildings, infrastructure, and all alterations of the land within areas that are outside of the Criteria Area are permitted under the Western Riverside County MSHCP (see MSHCP Section 2.3.7.1), cumulative impacts to biological resources with the exception of MSHCP non-covered species would be less than significant on a cumulative basis provided that the terms of the MSHCP are fully implemented (MSHCP Final EIR/EIS, Section 4.4.1.6). The Western Riverside County MSHCP database was consulted for the proposed Project and the required focused surveys for the western burrowing owl have been conducted. The Project Proponent is required to pay the required MSHCP mitigation fees pursuant to mitigation measures recommended by this EIR, (refer to Subsection 4.4.7 below). The Project would comply with the requirements of the Western Riverside County MSHCP and, thus, would not conflict with its adopted policies. Accordingly, because the proposed Project is required to comply with the Western Riverside County MSHCP and pay the required MSHCP mitigation fee, the Project as proposed on the Building D Site and the Building E Site would have less-than-significant cumulatively considerable impacts to MSHCP covered species. Regarding impacts to non-covered species, the Project would result in the direct loss of paniculate tarplant individuals. Although paniculate tarplant is not a MSHCP-covered species, because the plant species is not rare, threatened, or endangered, because its range is sufficiently broad, because the CNPS listing for the species is relatively low for the species, and because habitat for this species is preserved elsewhere within the MSHCP boundaries, the loss of the species on the Project site is considered less than significant (HES, 2016c). Loss of individual plants on the Project site would not threaten the species as a whole. The Project would not have a substantial adverse effect, either directly or through habitat modifications, on any other endangered or threatened species, candidate, sensitive, or special status species. The Project's impacts to the paniculate tarplant species would be less than significant and less than cumulatively considerable. Also, Riverside County Ordinance No. 810 requires the payment of a per-acre mitigation fee to disturb property located in the Western Riverside County MSCHP coverage area, which would adequately offset Project-related impacts to species covered by the MSHCP to less-than-significant levels.

The Project site is located within the MSHCP Burrowing Owl Survey Area but is not located within the NEPSSA, the CAPSSA, or the MSHCP Mammal and Amphibian Survey Areas. Although the

Project site occurs within the Western Riverside MSHCP, the Project site does not contain sensitive species or suitable habitat for any CASSA or NEPSSA sensitive species. Because the Project as proposed on the Building D Site and the Building E Site and all other developments within the Western Riverside County MSHCP geographic area would be required to comply with the MSHCP, Project-related impacts to MSHCP covered species would be less than significant and less than cumulatively considerable.

Although no Stephens' kangaroo rat (SKR) are known to occupy the Project site and none were observed during biological surveys of the Project site, the Project as proposed on the Building D Site and the Building E Site would impact habitat with the potential to support the Stephens' kangaroo rat (SKR). However, the Project site is located within the SKR Fee Assessment Area as established by the SKR HCP. Thus, coverage for impacts would be provided to the proposed Project through payment of the SKR fee per Riverside County Ordinance No. 633. Cumulative effects to SKR habitat is addressed through the SKR HCP and with mandatory compliance would be less than significant on a cumulatively considerable basis.

Although no sensitive bird species were reported on the Project site during general biological field surveys conducted on the Building D Site and the Building E Site, both properties contain trees and shrubs, which could provide habitat for migratory birds. If active nests are present at the time the nesting habitat is removed, impacts to active nests would be considered a direct and cumulatively significant impact. Impacts to nesting migratory birds are prohibited by the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code. With the Project Applicant's mandatory compliance with the MBTA, a less-than-significant impact would occur associated with migratory birds. A mitigation measure is required in Subsection 4.4.7 to ensure compliance with the MBTA. All cumulative development projects are required to comply with the MBTA, which would reduce impacts to less than significant.

Because the Project site is undeveloped, it has the potential to offer raptor foraging habitat. Direct and cumulative effects to raptor foraging habitat are addressed through the Western Riverside County MSHCP. Mandatory payment of the MSHCP fee would reduce any Project-related impact to raptor foraging habitat to below a level of significance. MSHCP Section 5.3.5, "Identifying Wildlife Habitat Types" describes the general California Wildlife Habitat Relationships (CWHR) methodology used to identify the planned MSHCP Conservation Area. The CWHR "makes predictions about a habitat's value to wildlife in terms of its capacity to fulfill reproduction, foraging, and cover needs of wildlife" (MSHCP Volume 1, Section 5.3.5). Thus, the MSHCP accounts for foraging and cumulative impacts would be less than significant.

The burrowing owl is fairly ubiquitous within the Project vicinity; as such, it is reasonable to conclude that impacts to habitat for this species are occurring throughout the cumulative study area. As such, cumulative impacts are assumed significant and the proposed Project's potential impacts to burrowing owls that may be located on the Building D Site and the Building E Site prior to Project construction

would be cumulatively considerable and mitigation would be required. Refer to Subsection 4.4.7 for recommended mitigation to address impacts to the burrowing owl.

An ephemeral drainage occurs on the Building D Site (0.09-acre (677 linear feet)) and the Building E Site (0.11-acre (690 linear feet)), which is dominated by upland plant species that qualifies as a MSHCP riverine resource because it receives fresh water flow during all or a portion of the year. The loss of 0.09-acre (677 linear feet) of this resource on the Building D Site and 0.11-acre (690 linear feet) of this resource on the Building E Site (690 linear feet) would be a direct and cumulatively considerable impact associated with the loss of riverine resources in the Western Riverside County MSHCP area. As required by the MSHCP, a Determination of Biologically Equivalent or Superior Preservation (DBESP) analysis was required for the Building D Site and the Building E Site, and the DBESP reports are attached to this EIR as *Technical Appendices C7 and C8.* Mitigation in compliance with the DBESP reports is provided below in Subsection 4.4.7 below. No wetlands, vernal pools, or "waters of the United States" occur on either the Building D Site or the Building E Site, nor would any of these resources occurring off-site in other areas of Riverside County be affected by the proposed Project. Therefore, the Project has no potential to result in a cumulatively considerable impact to wetlands, vernal pools, or "waters of the United States." The Project is required by law to comply with site-specific Water Quality Management Plans (WQMPs), including Best Management Practices (BMPs) that address the quality of storm water runoff. As such, changes in the quality of discharged water from the site would have no potential to cumulatively impact biological functions and values as it relates to downstream resources.

The Project as proposed on the Building D Site and the Building E Site would not significantly impact wildlife movement corridors because such corridors already are accommodated by the Western Riverside County MSHCP and the Project site is not targeted for conservation as part of any proposed or existing linkages by the MSHCP. In addition, there are no native wildlife nursery sites within the Project vicinity. While Western Riverside County is becoming increasingly suburbanized, which could restrict wildlife movement, the MSHCP, and the Conservation Areas established therein, was developed with several goals that specifically support wildlife movement. Accordingly, cumulative impacts to wildlife movement are less than significant. As concluded by the MSHCP's Final EIR/EIS, "The MSHCP provides for the movement of native resident and migratory species and for genetic flow identified for Covered Species. Therefore, impacts related to cores and linkages resulting from the Plan are considered less than significant" (MSHCP Volume 4: Final EIR/EIS, Section 4.1.5). As such, the Project as proposed on the Building D Site and the Building E Site would not result in cumulatively considerable impacts to wildlife movement corridors or native wildlife nursery sites.

No other local policies or ordinances protecting biological resources are applicable to the Project site other than the Western Riverside County MSHCP and the SKR HCP. Accordingly, the Project would have no potential to contribute to cumulative effects associated with to other local policies and ordinances protecting biological resources. No impact would occur.

4.4.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold (a) for the Building D Site and the Building E Site: Significant Direct and Cumulatively Considerable Impact. The Project is subject to compliance with two Habitat Conservation Plans (HCPs): The Western Riverside County Multiple Species Conservation Program (MSHCP) and the Stephens' Kangaroo Rat (SKR) HCP. The Project site is not located in a planned conservation area of either HCP, and is required by the Riverside County Municipal Code to pay MSCHP and SKR HCP mitigation fees. Regarding applicable MSHCP provisions for properties located outside of conservation areas, the Project would result in significant direct and cumulatively considerable impacts to the western burrowing owl if the species is present on the site when construction activities commence. The Project also would result in the loss of an ephemeral drainage that occurs on the Building D Site (0.09-acre (677 linear feet)) and the Building E Site (0.11-acre (690 linear feet)), which qualifies as a MSHCP riverine resource because it receives fresh water flow during all or a portion of the year. The loss of this resource on the Project site would be a direct and cumulatively-considerable impact associated with the loss of riverine resources in the Western Riverside County MSHCP area. Complete avoidance of the riparian/riverine resources is not feasible. Because there are no feasible avoidance alternatives available, the MSHCP requires the Project to provide compensatory mitigation to ensure the replacement of any lost functions and values as it related to the plan and wildlife species covered by the MSHCP.

Thresholds (b) and (c) for the Building D Site and the Building E Site: Significant Direct and Cumulatively Considerable Impact. The Project would result in less-than-significant impacts to sensitive plant species. No sensitive plant communities are located on the Project site. Although paniculate tarplant is not a MSHCP-covered species, because the plant species is not rare, threatened, or endangered, because its range is sufficiently broad, because the CNPS listing for the species is relatively low for the species, and because habitat for this species is preserved elsewhere within the MSHCP boundaries, the loss of the species on the Project site is considered less than significant. Loss of individual plants on the Project site would not threaten the species as a whole. Thus, the Project's impacts to the species would be less than significant and less than cumulatively considerable. In regards to sensitive wildlife species, the Project would significantly impact the western burrowing owl if the species is present on the Project site at the time construction activities commence. In addition, migratory bird species protected by the MBTA would be impacted by the Project if active nests are present on the site at the time that nesting habitat (trees and shrubs) are removed. These impacts would be direct and cumulatively considerable.

Threshold (d) for the Building D Site and the Building E Site: Significant Direct and Cumulatively Considerable Impact. The Project has the potential to impact nesting migratory birds if active nests are disturbed during the nesting season (February 1 to August 31). The Project would not substantially interfere with the movement of any other native resident or migratory fish or wildlife species, would not interfere with a migratory wildlife corridors, and would not impede the use of native wildlife nursery sites.

Threshold (e) and (f) for the Building D Site: Significant Direct and Cumulatively Considerable Impact. The Project as proposed on the Building D Site would result in the direct loss of 0.09-acre (677 linear feet) of an ephemeral drainage feature dominated by upland plant species that receives fresh water flow during all or a portion of the year. The drainage feature qualifies as a Western Riverside County MSHCP riverine resource and falls under the jurisdiction of the CDFW. No impact to riparian habitats, vernal pools, State or federal wetlands, "waters of the United States," or other sensitive natural communities would occur.

Threshold (e) and (f) for the Building E Site: Significant Direct and Cumulatively Considerable Impact. The Project as proposed on the Building E Site would result in the direct loss of 0.11-acre (690 linear feet) of an ephemeral drainage feature dominated by upland plant species that receives fresh water flow during all or a portion of the year. The drainage feature qualifies as a Western Riverside County MSHCP riverine resource and falls under the jurisdiction of the CDFW. No impact to riparian habitats, vernal pools, State or federal wetlands, waters of the United States, or other sensitive natural communities would occur.

Threshold (g) for the Building D Site and the Building E Site: No Impact. Other than the Western Riverside County MSHCP and SKR HCP, which are addressed under Threshold (a), there no other local policies or ordinances protecting biological resources that are applicable to resources present on the Project site. No impact would occur.

4.4.7 MITIGATION

Applicable County Regulations and Design Requirements

The following are applicable regulations and design requirements to which the Project is required to comply. Although these regulations and requirements technically do not meet CEQA's definition for mitigation, they are listed below for information purposes.

- The Project Applicant shall comply with County of Riverside Ordinance No. 810 (Western Riverside County MSHCP Fee Program Ordinance), which requires a per-acre local development impact and mitigation fee payment prior to the issuance of a building permit.

- The Project Applicant shall comply with County of Riverside Ordinance No. 663 (Stephens' Kangaroo Rat Mitigation Fee Ordinance) which requires a per-acre local development and mitigation fee payment prior to the issuance of a grading permit.

- The Project Applicant shall comply with the federal Migratory Bird Treaty Act.

Mitigation Measures

The following mitigation measures are applicable to the Building D Site and the Building E Site:

MM 4.4-1 Pursuant to Objectives 5, 6, and 7 of the Species Account for the Burrowing Owl included in the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), within 30 days prior to the issuance of a grading permit, a pre-construction presence/absence survey for the burrowing owl shall be conducted by a qualified biologist and the results provided in writing to the Environmental Programs Department. If it is determined that the project site is occupied by the Burrowing Owl, take of "active" nests shall be avoided pursuant to the MSHCP and the Migratory Bird Treaty Act (MBTA). However, when the Burrowing Owl is present, relocation outside of the nesting season (March 1 through August 31) by a qualified biologist shall be required. The County Biologist shall be consulted to determine appropriate type of relocation (active or passive) and translocation sites, in accordance with California Department of Fish and Wildlife (CDFW) guidelines. In the event that burrowing owls are occupying the Project site at the time of the pre-construction survey, passive relocation shall not be allowed. A grading permit may be issued once the species has been relocated. If the grading permit is not obtained within 30 days of the survey, a new survey shall be required.

MM 4.4-2 As a condition of grading permits, a migratory nesting bird survey of all trees to be removed shall be conducted by a qualified biologist within 10 days prior to initiating tree removal or vegetation clearing within 500 feet of a mature tree. A copy of the migratory nesting bird survey results report shall be provided to the Riverside County Environmental Programs Department (EPD). If the survey identifies the presence of active nests, then the qualified biologist shall provide the Riverside County EPD with a copy of maps showing the location of all nests and an appropriate buffer zone around each nest sufficient to protect the nest from direct and indirect impacts. The size and location of all buffer zones, if required, shall be subject to review and approval by the Riverside County EPD and shall be no less than a 300-foot radius around the nest for non-raptors and a 500-foot radius around the nest for raptors. The nests and buffer zones shall be field checked weekly by a qualified biological monitor. The approved buffer zone shall be marked in the field with construction fencing, within which no vegetation clearing or ground disturbance shall commence until the qualified biologist and Riverside County EPD verify that the nests are no longer occupied and the juvenile birds can survive independently from the nests.

The following mitigation measure is applicable to the Building D Site:

MM 4.4-3 To mitigate for permanent impacts to a 0.09-acre (677 linear foot) ephemeral drainage feature on the Building D Site, the Project Applicant shall pay into the Riverside Corona Resource Conservation District in-lieu fee program, at a 2:1 ratio, totaling 0.18

acre. Evidence of fee payment shall be supplied to the Riverside County Environmental Programs Department (EPD) prior to issuance of a grading permit.

The following mitigation measure is applicable to the Building E Site:

MM 4.4-4 To mitigate for permanent impacts to a 0.11-acre (690 linear feet) ephemeral drainage feature on the Building E Site, the Project Applicant shall pay into the Riverside Corona Resource Conservation District in-lieu fee program, at a 2:1 ratio, totaling 0.22-acre. Evidence of fee payment shall be supplied to the Riverside County Environmental Programs Department (EPD) prior to issuance of a grading permit.

4.4.8 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

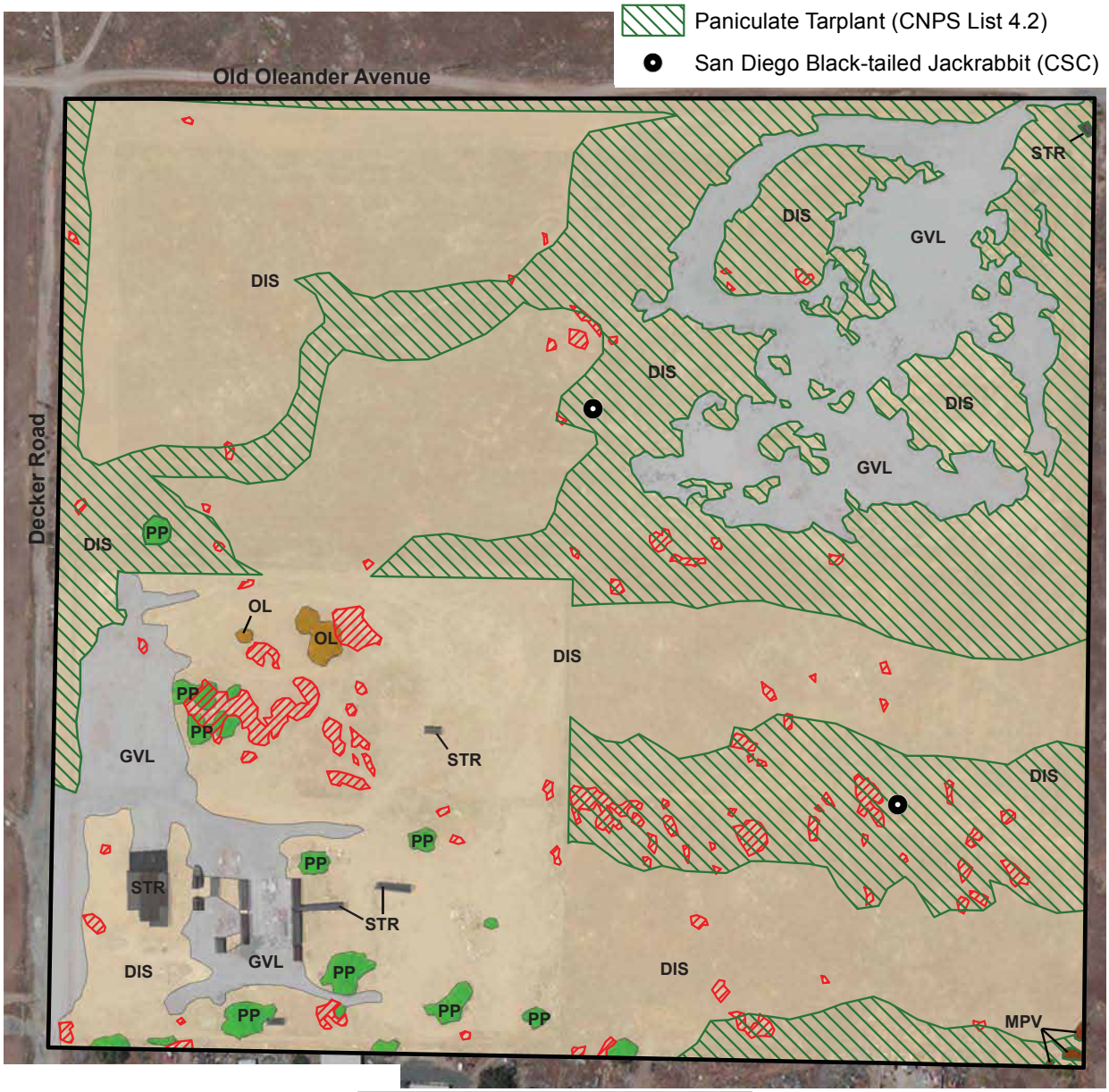
Threshold (a) for the Building D Site and the Building E Site: Less-than-Significant with Mitigation Incorporated. Implementation of Mitigation Measure MM 4.4-1 and MM 4.4-2 would ensure that pre-construction surveys are conducted and appropriate actions are taken to avoid significant impacts to the western burrowing owl. Implementation of Mitigation Measures MM 4.4-3 and MM 4.4-4 would represent a biologically equivalent or superior preservation alternative to avoidance of MSHCP riparian/riverine resources because the in-lieu mitigation fee would result in the restoration and preservation of an equivalent acreage of habitat with higher values in comparison to the drainage features impacted by the Project. In general, in lieu programs provide funding to enhance, restore, establish, and/or preserve aquatic habitats. Unlike the on-site isolated drainage features, these aquatic resource projects typically include large areas of land with contiguous wetland habitats and natural upland buffers that provide many of the habitat components required by the MSHCP. (HES, 2016a, p. 8) (HES, 2017a, pp. 7-9)

Threshold (b) and (c) for the Building D Site and the Building E Site: Less-than-Significant with Mitigation Incorporated. Implementation of Mitigation Measures MM 4.4-1, MM 4.4-2, and MM 4.4-3 would ensure that the Project's impacts to sensitive wildlife species are reduced to below levels of significance. In addition, the Project Applicant would be required as a mandatory regulatory requirement to pay applicable and mandatory mitigation fees for Western Riverside County MSHCP and SKR HCP compliance. With implementation of the required mitigation, potential direct and cumulatively considerable impacts to the burrowing owl and birds protected by the MBTA would be reduced to below a level of significance.

Threshold (d) for the Building D Site and the Building E Site: Less than-Significant with Mitigation Incorporated. Implementation of Mitigation Measure MM 4.4-2 would ensure compliance with the MBTA and mitigate potential impacts associated with the movement of migratory birds.

Threshold (e) and (f) for the Building D Site and the Building E Site: Less-than-Significant with Mitigation. Implementation of Mitigation Measures MM 4.4-3 and MM 4.4-4 would represent a biologically equivalent or superior preservation alternative to avoidance of MSHCP riparian/riverine resources because the in-lieu mitigation fee would result in the restoration and preservation of an

equivalent acreage of habitat with higher values in comparison to the existing drainage features impacted by the Project.



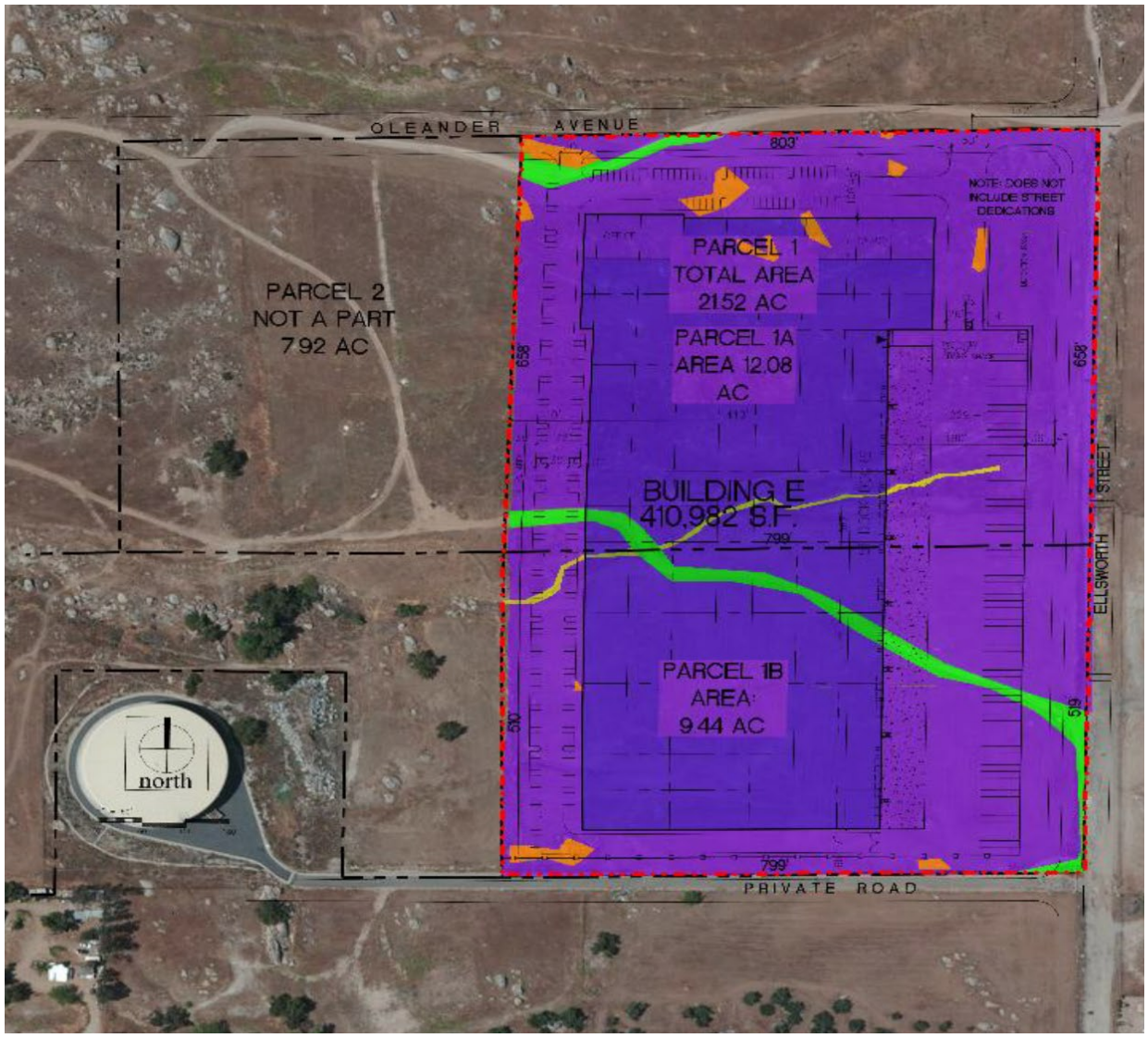
LEGEND		
		Acres
DIS	*Disturbed*	31.04
GVL	*Gravel Road/Splay*	5.36
PP	*Peruvian Pepper*	0.37
STR	*Structure*	0.22
OL	*Olive*	0.07
MPV	*Mexican Palo Verde*	0.02
	Total	**37.08**

Source(s): Cadre Environmental (07-2016)

Figure 4.4-1

NOT TO SCALE

BUILDING D SITE BIOLOGICAL RESOURCES



Legend

- 20.43 Acres of Disturbed Non-Native Vegetation
- 0.11 Acre Swale
- 0.31 Acres of Granitic Outcrops
- 0.67 Acres of Disturbed Non-Vegetated Habitat

Source(s): Hernandez Environmental Services (02-2017)

Figure 4.4-2

NOT TO SCALE

BUILDING E SITE BIOLOGICAL RESOURCES

4.5 CULTURAL RESOURCES

As discussed in Section 3.0, *Project Description*, the proposed Project involves the development of two properties located south of Oleander Avenue and both east and west of Ellsworth Street (also called "Decker Road" in this EIR and its associated Technical Appendices) totaling approximately 58.6 acres. The Building D Site is located on approximately 37.1 acres east of Ellsworth Street, and the Building E Site is located on approximately 21.5 acres west of Ellsworth Street. Both properties are collectively referred to in this EIR as the "Project site." For purposes of evaluation herein, the two properties are referred to individually as the "Building D Site" and the "Building E Site."

The analysis in this Subsection is based in part on two site-specific cultural resources assessments. The cultural resources assessment prepared for the Building D Site is titled, "A Phase I and II Cultural Resources Assessment for the Decker Parcels I Project," prepared by Brian F. Smith and Associates, Inc., (hereafter BFSA) dated June 24, 2015, and appended to this EIR as *Technical Appendix D1* (BFSA, 2015a). The cultural resources assessment prepared for the Building E Site is titled, "A Phase I and II Cultural Resources Assessment for the Decker Parcels II Project," prepared by BFSA, dated April 29, 2016, and appended to this EIR as *Technical Appendix D2* (BFSA, 2016a). Please note that *Technical Appendix D2* was prepared prior to the Project Applicant's decision to reduce the size of the Building E Site to its current configuration; therefore, the report covers additional acreage (12.1 acres west of the Building E Site) that is no longer in the Project site boundary and is not applicable to the discussion herein of potential on-site impacts.

All references used in this Subsection are included in EIR Section 7.0, *References*. Confidential information has been redacted from *Technical Appendices D1 and D2* for purposes of public review. In addition, much of the written and oral communication between Native American tribes, the County of Riverside, and BSFA is considered confidential in respect to places that have tribal cultural significance (Gov. Code § 65352.4), and although relied upon in part to inform the preparation of this EIR Subsection, those communications are treated as confidential and are not available for public review. Under existing law, environmental documents must not include information about the location of archeological sites or sacred lands or any other information that is exempt from public disclosure pursuant to the Public Records Act (Cal. Code Regs. § 15120(d)).

4.5.1 EXISTING CONDITIONS

A. *Cultural Setting of the Project Site*

The two site-specific cultural resources assessments prepared for the Project site detail the prehistoric and historic setting of the Project area. The prehistoric context summarizes the history of the Project area (starting with the early pre-historic period), the known archaeology of the Project area, and the known indigenous culture of the Project area. The historic context provides a summary of the distinctive historic periods of the Project area, and identifies Native American habitation and land uses, other historic ethnic group settlement and land uses, and historic land granting, homesteading, or other Native American or non-Native American settlement methods and patterns, and land uses. A brief

summary of the prehistoric and historic setting of the Project area is provided below. Refer to *Technical Appendices D1 and D2* for more detail.

Paleo Indian, Archaic Period Milling Stone Horizon, and the Late Prehistoric Shoshonean groups are the three general cultural periods represented in western Riverside County, the area in which the Project site is located. Because these culture sequences have been used to describe archaeological events, actions, or objects in the region, the following discussion references the cultural chronology of the Project area, which is associated with the following geologic divisions of time (epochs): Late Pleistocene, the early Holocene, the middle Holocene, and the late Holocene. Refer to Table 2.3-1 of *Technical Appendices D1 and D2* for a summary of the regional chronologies in relationship to the geologic framework. The Late Prehistoric component in the area of western Riverside County was represented by the Luiseño with influences from the Gabrielino, Cahuilla, and Serrano Indians. (BFSA, 2015a, pp. 2.0-5 through 2.07) (BFSA, 2016a, pp. 2.0-5 through 2.0-7)

1. Late Pleistocene / Paleo Indian Period (11,500 to circa 9,000 YBP)

In North America, the Paleo Indian Period began at approximately 11,500 years before present (YBP) with the Clovis culture. Large, fluted points in addition to knives, scrapers, choppers, perforators, and casual flake tools characterize the Clovis culture as big game hunters. Clovis sites have not been identified in the Project area, although isolated Clovis-like fluted points have been found in a variety of settings in southern California including passes in the Cuyamaca and Tehachapi mountains, valleys in the Mojave Desert and Owen Valley, and shorelines of Little Lake, Searles Lake, Panmint Lake, and ancient Lake Mojave. The recovery of isolated fluted points would suggest that at the end of the Pleistocene, small groups of people, which shared Clovis-like traits, were present in southern California. The recovery of fluted points in a variety of settings would suggest that Paleo Indians were likely attracted to multiple habitat types including mountains, marshlands, estuaries, and lakeshores. Rather than being big-game hunters, these people likely subsisted using a more generalized hunting, gathering, and collecting adaption utilizing a variety of resources including birds, mollusks, and large and small mammals. (BFSA, 2015a, p. 2.0-6) (BFSA, 2016a, pp. 2.0-6)

2. Early and Middle Holocene / Archaic Period (circa 9,000 to 1,300 YBP)

The Archaic Period in southern California is associated with a number of different cultures, complexes, traditions, or horizons including Western Pluvial Lakes, San Dieguito, La Jolla, Encinitas, Milling Stone, Pauma, and Sayles (BFSA, 2015a, P. 2.0-9) (BFSA, 2016a, p. 2.0-9).

Archaeological research indicates that southern California was occupied between 9,000 to 1,300 YBP by population(s) that utilized a wide range of both marine and terrestrial resources. Overlapping radiocarbon dates and artifact types between sites identified as Western Pluvial lakes, San Dieguito, La Jolla, Encinitas, Milling Stone, Sayles, and/or Pauma suggest a generalized hunting and gathering pattern that was employed for over 8,000 years. The large amount of marine shell and fish along with some mammal bone next to coastal lagoons changes as one moves inland and an increase in flakes, tools, and bone is seen at these sites along with a decrease in shell. This transition in sites and artifact assemblages is believed to reflect the same people moving along drainages between the coast and

mountains, exploiting both marine (fish and mollusks) and terrestrial (small and large game, plants, and stone materials) resources. (BFSA, 2015a, pp. 2.0-16 through 2.0-17) (BFSA, 2016a, pp. 2.0-16 through 2.0-17)

3. Late Holocene / Late Prehistoric / San Luis Rey Period (1,300 YBP to 1769)

Approximately 1,350 YBP, a Shoshone-speaking group from the Great Basin moved into Riverside County, marking the transition to the Late Prehistoric Period. This period is characterized by higher population densities and the expansion of social, political, and technological systems. Economic systems diversified and intensified during this period with the continued growth of trade networks, the use of shell-bead currency, and the appearance of more labor-intensive, yet effective, technological innovations such as the bow and arrow. This period is divided into two phases, the San Luis Rey I and San Luis Rey II, the division of which is based on the introduction of pottery. The introduction of pottery and the initiation of San Luis Rey II began at approximately A.D. 1300. San Luis Rey I is characterized by the use of portable, shaped or unshaped slab metates (milling stones), shaped or unshaped manos and pestles, and non-portable bedrock milling features. Cremations, bone awls, and stone and shell ornaments are also prominent in the material culture. Ceramic cooking and storage vessels, cremation urns, and multi-color (polychrome) rock art images created by the means of painting using dyes and pigments (pictographs) augment the later San Luis Rey II assemblage. The fluorescence of rock art likely appeared as the result of increased populations and sedentism. Flaked stone dart points were the dominant flaked stone tool utilized for cutting, scraping, and carving but serrated styles were also used. Subsidence is thought to have focused on the utilization of acorns, a storable species that allowed sedentism and increased population densities. (BFSA, 2015a, pp. 2.0-17 and 2.0-18) (BFSA, 2016a, p. 2.0-17)

4. Late Holocene / Protohistoric Period / Ethnographic Groups (1790 to Present)

Evidence indicates that three Shoshonean-speaking groups occupied portions of Riverside County including the Cahuilla, the Gabrielino, and the Luiseño. The geographic boundaries of these groups in pre-and proto-historic times are difficult to place but the Project site is well within the borders of Luiseño territory. This group was a seasonal hunting and gathering people with cultural elements that were very distinct from Archaic Period peoples. These distinctions include cremation of the dead, the use of the bow and arrow, and the exploitation of the acorn as the main food staple. Along the coast, the Luiseño made use of available marine resources by fishing and collecting mollusks for food. Seasonally available terrestrial resources, including acorns and game, were also sources of nourishment for Luiseño groups. Elaborate kinship and clan systems between the Luiseño and other groups facilitated a wide-reaching network that included trade of Obsidian Butte obsidian and other resources from the eastern deserts, as well as steatite from the Channel Islands. The primary settlements of late Prehistoric Luiseño Indians in the San Jacinto Plain were represented by *Ivah* and *Soboba* near Soboba Springs, *Jusipah* near the town of San Jacinto, *Ararah* in Webster's Canyon en route to Idyllwild, *Pahsitha* near Big Springs Ranch southeast of Hemet, and *Corova* in Castillo Canyon. These locations share features such as the availability of food and water resources. Features of this land use include petroglyphs and pictographs, as well as widespread milling, which is evident in bedrock and portable implements. (BFSA, 2015a, p. 2.0-18) (BFSA, 2016a, p. 2.0-18)

5. *Ethnohistoric Period (1769 to Present)*

European exploration along the California coast began in 1542 with the landing of Juan Rodriguez Cabrillo and his men at San Diego Bay. Sixty years after the Cabrillo expeditions, an expedition under the leadership of Sebastian Viscaino made an extensive and thorough exploration of the Pacific coast. These early Eurpoean voyages observed Native Americans living in villages along the coast. At the time of contact, the Luiseño population was estimated to have ranged from 4,000 to as many as 10,000 individuals. (BFSA, 2015a, p. 2.0-26) (BFSA, 2016a, p. 2.0-26)

6. *Historic Period*

The historic background of the Project area began with the Spanish colonization of Alta California. The first Spanish colonizing expedition reached southern California in 1769 with the intention of converting and civilizing the indigenous populations, as well as expanding the knowledge of and access to new resources in the region. In the late eighteenth century, the San Gabriel (Los Angeles County), San Juan Capistrano (Orange County), and San Luis Rey (San Diego County) missions began colonizing southern California and gradually expanded their use of the interior valley (into what is now western Riverside County) for raising grain and cattle to support the missions. The San Gabriel Mission claimed lands in what is now identified as Jurupa, Riverside, San Jacinto, and the San Gorgonio Pass, while the San Luis Rey Mission claimed land in what is now identified as Lake Elsinore, Temecula, and Murrieta. The indigenous groups who occupied these lands were recruited by missionaries and put to work in the missions. Throughout this period, Native American populations were reduced in number by introduced diseases, a drastic shift in diet resulting in poor nutrition, and social conflicts due to the introduction of an entirely new social order. (BFSA, 2015a, pp. 2.0-26 through 2.0-27) (BFSA, 2016a, pp. 2.0-26 through 2.0-27)

In the mid-to-late 1770's Juan Bautista de Anza passed through much of Riverside County while searching for an overland route from Sonora, Mexico to San Gabriel and Los Angeles. Juan Bautista de Anza described the environment of what is now Riverside County, as fertile valleys, lakes, and sub-desert areas. In 1797, Father Presidente Lausen, Father Norberto de Santiago, and Corporal Pedro Lisalde led an expedition from Mission San Juan Capistrano through southwestern Riverside County in search of a new mission site before constructing Mission San Luis Rey in northern San Diego County. While no missions were built in what is now Riverside County, many mission outposts, or *asistencias*, were established in the early years of the nineteenth century to extend the missions' influence to the backcountry. Two such mission outposts that were located in Riverside County include San Jacinto and Temecula. In 1822, Mexico gained independence and in 1832, the missions were desecularized, signifying the end of the Mission Period. By this time the missions owned some of the best and most fertile land in southern California. The new government began distributing the vast mission holdings to wealthy and politically connected Mexican citizens. The "grants" were called "ranchos," of which Jurupa, El Rincon, La Sierra, El Sobrante de San Jacinto, La Laguna (Lake Elsinore), Santa Rosa, Temecula, Pauba, San Jacinto Nuevo y Potrero, and San Jacinto Viejo were located in present-day Riverside County. Rancho Jurupa, the first grant located in present-day Riverside County, was given to Juan Bandini in 1838. These ranchos were all located in the valley environments of western Riverside County. During the Rancho Period, most of the Native Americans

were forced off their land or put to work on the now privately owned ranchos. At that point in time, Native American culture had been disrupted to the point where they could no longer rely on prehistoric subsidence and social patterns. (BFSA, 2015a, pp. 2.0-27 through 2.0-28) (BFSA, 2016a, pp. 2.0-27 through 2.0-28)

In 1846, war erupted between Mexico and the United States. In 1848, with the signing of the Treaty of Guadalupe Hidalgo, the region was annexed as territory of the United States, leading California to become a state in 1850. These events generated a steady flow of settlers to the area. With the completion of the transcontinental railroad in 1869, land speculators, developers, and colonists began to invest in southern California. A few years later, the navel orange was planted and found to be such a success that it quickly became the agricultural staple of the region. Riverside County was formed in 1883 at a time in which it was the wealthiest city per capita in the country due to the successful cultivation of the navel orange. (BFSA, 2015a, pp. 2.0-28 through 2.0-29) (BFSA, 2016a, pp. 2.0-28 through 2.0-29)

B. Historic Resources

County of Riverside EIR No. 521 was prepared in association with County General Plan Update No. 960 and contains the most recent information regarding historical sites and resources in Riverside County. According to County of Riverside EIR No. 521, Table 4.9-A *Cultural Resources of Riverside County*, no resources recognized by the National Register of Historic Places (NHRP), California Registered Historic Landmarks Architecture (CRHL), California Points of Historic Interest (CPHI), or Riverside County Historical Landmarks (RCHL) are located on the Building D Site or the Building E Site. In addition, Figure 4.9.2, *Historical Resources*, of the County's EIR No. 521, does not identify historical resources on the Building D Site or the Building E Site (Riverside County, 2015d, Figure 4.9.2).

1. Building D Site

Under existing conditions, the Building D Site is generally vacant with the exception of a single mobile home residence and associated outbuildings that are modern and do not to meet the definition of an historical resource pursuant to California Code of Regulations (CCR) Section 15064.5. (BFSA, 2015a, p. 4.0-8)

2. Building E Site

Under existing conditions, the Building E Site is vacant. A large majority of the Building E Site has been disturbed by previous periodic plowing and disking and the construction of an off-site water tank. (BFSA, 2016a, p. 2.0-5) Site RIV-1330/H was previously recorded on the Building E Site as being associated with a small historic component. However, during BFSA's field investigations in 2015, the concrete cistern was observed to be barely visible and filled with dirt and BFSA was unable to link the cistern with the Val Verde Tunnel feature (as linked in previous studies) or with any adjacent historic land use. The feature was recorded in 1978; however, the age of the feature could not be confirmed by BFSA. The actual location of the Val Verde Tunnel is approximately 1.0 mile south of the Building

E Site. The projection of past studies that the "tunnel" feature associated with Site RIV-1330/H was part of the Val Verde Tunnel project could not be substantiated by BFSA. The feature which was referred to in past studies as being linked to the Val Verde Tunnel was observed off-site and west of the Building E Site by BFSA as a hole approximately 4-feet in diameter that at one time extended approximately 100 feet into the hillside but is now filled with dirt and is inaccessible. Lacking any clear association with the water conduit system, BFSA determined that the feature has no linkage with the historic water project and is therefore not considered significant under CEQA. (BFSA, 2016a, p. 5.0-1)

C. *Archaeological Resources*

An archaeological records search of previously recorded archaeological sites, conducted at the Eastern Information Center, reported that 73 cultural resource properties are located within a one-mile radius of the Building D Site and the (formerly larger) Building E Site. The 73 cultural resources recorded within a one-mile radius of the Building D Site and Building E Site (not including the Project site and the 12.1 acres of the formerly larger Building E site that are studied in detail in *Technical Appendix D2* (BFSA, 2016a).), include 62 bedrock milling sites, two historic railroad tracks, one historic debris site, three historic residences, one World War II barracks, one historic trash deposit and one historic steel pipeline. Brief descriptions of the recorded sites located within one-mile of the Building D Site and the (formerly larger) Building E Site are provided in Table 4.1-1 of the Building D Site and Building E Site cultural resources assessment reports prepared by BFSA (*Technical Appendices D1 and D2*).

The records search indicates that 50 cultural resource studies were previously conducted within a one-mile radius of the Building D Site and the (formerly larger) Building E Site. The previous studies conducted within one-mile of the Building D Site and (formerly larger) Building E Site are referenced in Table 4.1-2 of *Technical Appendices D1 and D2*. The archaeological records search results are bound separately as Appendix C to *Technical Appendices D1 and D2* as Confidential Appendices. (BFSA, 2015a, pp. 4.0-1 through 4.0-8) (BFSA, 2016a, pp. 4.0-1 through 4.0-8) The results are confidential because the California Government Code § 6254(r) does not require the disclosure of records of Native American graves, cemeteries, and sacred places and records of Native American places, features, and objects described in § 5097.9 and § 5097.993 of the Public Resources Code maintained by or in the possession of, the NAHC, another state agency, or a local agency.

In addition, BFSA requested a review of the Sacred Lands File (SLF) by the Native American Heritage Commission (NAHC) to determine if any recorded Native American sacred sites or locations of religious or ceremonial importance are present within one-mile of the Building D Site or the (formerly larger) Building E Site. The NAHC SLF search did not indicate the presence of any sacred sites within the search radius. BFSA's analysis of site components and artifacts did not indicate Native American religious, ritual, or other special activities on the Building D Site or the (formerly larger) Building E Site. A list of Native American contacts was provided by the NAHC and the original correspondence is contained in Appendix D of *Technical Appendices D1 and D2*. (BFSA, 2015a, p. 3.0-5) (BFSA, 2016a, p. 3.0-3)

As part of the SB18 and AB52 consultation processes, the County of Riverside received information from the Pechanga Band of Luiseño Indians asserting that the Project area is part of a) tribal cultural landscape extending several miles around the Project site and consisting of related archaeological sites associated with either the village of *Qazáalku* or a smaller (unnamed) village. The Tribe cited Tribal knowledge, oral history, internal Tribe records, ethnological documentation, and the archaeological research conducted for the Building D Site and (formerly larger) Building E Site by BFSA as the basis of this assertion, although a large majority of the documentation submitted by the Tribe to Riverside County contained a summary of Tribal knowledge and oral tradition, supported by limited scientific analysis and ethnographic data. (Pechanga, 2015; Pechanga, 2016) While it is acknowledged that the archaeological resources identified on the Project site (discussed below) are part of Luiseño settlement and subsistence history, substantial evidence required by CEQA has not been provided by the Tribe or other party, or is known to Riverside County, to distinguish the Project site or the presumed larger tribal cultural landscape as unique or significant among the many other lands inhabited by Native Americans across California and North America. The Tribe refers to a cultural landscape generally, and has not provided geographic definition as to its scope and boundaries. Further, a possible cultural landscape is not necessarily a tribal cultural resource (TCR) as defined under AB-52. AB-52 does not provide that all cultural landscapes qualify as TCRs unless the landscape meets the definition given in Public Resources Code § 21074(b). While the Project site may or may not have some association to a village as asserted by the Pechanga Tribe, the Tribe has not supplied the substantial evidence necessary for the County to conclude that the individual resources on the Project site, or the wider landscape, qualifies as a significant archaeological resource or TCR as defined by the Public Resources Code and State CEQA Guidelines. Nonetheless, the information supplied by the Tribe in written form (Pechanga, 2015; Pechanga, 2016) and in oral form during consultation meetings with the County and field visits in County staff's presence, was important to the County's deliberative process and was taken into consideration by the County when determining the potential significance of the on-site resources (according to the criteria presented in Subsection 4.5.2, below), and in determining the significance of the proposed Project's impacts to these resources. In addition, the presence of archaeological resources of concern to the Tribe west of the currently-proposed western boundary of the Building E Site was a contributing factor to the Project Applicant's decision to reduce the size of the Building E Site (by 12.1 acres) compared to the size of the Building E Site studied in *Technical Appendix D2.*

1. Building D Site

The methodology employed by BFSA for the cultural resources assessment of the Building D Site consisted of an institutional records search at the Eastern Information Center, an intensive pedestrian survey, significance testing of two prehistoric milling sites (one of which contained a historic trash scatter), and additional field visits accompanied by the County Geologist, County Archaeologist, and representatives of the Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians. Refer to *Technical Appendix D1* for a detailed description of the archaeological records search, the field methodology, and the laboratory methods employed by BFSA for the Building D Site. (BFSA, 2015a, Section 3.0 Methodology)

An archaeological records search for the Building D Site and the surrounding area within a one-mile radius was conducted by the Eastern Information Center (EIC) at the University of California, Riverside (UCR). The EIC reported that two cultural resources (Site RIV-8401 and Site RIV-8402) were previously recorded as occurring within the Building D Site. Although the Building D Site was never formally surveyed in the past, both Site RIV-8401 and Site RIV-8402 were recorded in 2007 as part of a proposed Plot Plan for a different project. Records are not clear where the Plot Plan was located and no significance testing was conducted at that time. (BFSA, 2015a, p. 4.0-11)

The Building D Site is relatively flat, with elevations that range from 1,558 above mean sea level (ASML) at the property's northeast corner to 1,607 ASML at its southwest corner. Highly weathered and deteriorating bedrock outcrops are scattered throughout the Building D Site. During the pedestrian survey conducted by BFSA on September 4, 2014, the Building D Site was observed as disturbed by previous agricultural use, gravel dispersal, and the use of a rural residence with associated outbuildings. Subsequent field visits in 2015 and 2016 affirmed these findings. The majority of the Building D Site appeared to have been cleared and tilled in the past. This characterization of the Building D Site as moderately to severely disturbed is relevant to the consideration of the presence of cultural resources within the Project area; disturbance can result in the damage and removal of resources and/or can make visually obscured resources more visible. The source of previous disturbance appears to be the result of farming, general land clearing, and residential use. The survey conducted by BFSA confirmed the presence of the two previously recorded bedrock milling sites (RIV-8401 and RIV-8402) and identified a historic trash scatter located within Site RIV-8402. (BFSA, 2015a, p. 4.0-8) A site significance testing program was undertaken by BFSA to evaluate Site RIV-8401 and Site RIV-8402 under CEQA for significance, as described below. (BFSA, 2015a, p. 1.0-2)

When considering the association of RIV-8401 and RIV-8402 to a possible cultural landscape, the County determined that the Pechanga Tribe has not provided geographical definition to a tribal cultural landscape encompassing the Building D Site in terms of the size and scope of the landscape. Further, there is a lack of substantial evidence upon which the County can conclude that RIV-8401 and RIV-8402 are individually or collectively unique archaeological resource(s) that significantly contribute to the integrity of a possible cultural landscape. The preponderance of evidence provided in *Technical Appendix D1* and in confidential communications between Riverside County, the Pechanga Tribe, and BSFA, indicate that RIV-8401 and RIV-8402 are not significant under CEQA. In addition, there is a lack of substantial evidence to consider the landscape a TCR as defined by Public Resources Code § 21074 and § 5024.1. AB 52, Section 21074(b), requires that for a cultural landscape to be a TCR, the landscape must meet the criteria of a TCR and be defined in terms of "size and scope of the landscape." Because the substantial evidence that is needed to conclude that the subject property is a cultural landscape is lacking, the Project site is not deemed by Riverside County to be part of a cultural landscape or a TCR under AB 52. Additional information is provided below about each site to support this conclusion.

Site RIV-8401

Site RIV-8401 was recorded in 2007 as a single bedrock milling feature, which consisted of three milling slicks on a single granite boulder. The 2014 investigation conducted by BFSA confirmed the presence of the bedrock milling feature recorded in 2007 and identified three additional milling features. The testing program employed by BFSA for Site RIV-8401 consisted of recording the four bedrock milling features and conducting subsurface investigations. During BFSA's testing program, eight shovel test pits (STPs) were placed in the vicinity of the bedrock milling features. No subsurface cultural materials were encountered during BFSA's testing program. Because the study of Site RIV-8401 did not produce any artifacts or evidence of a subsurface deposit, BFSA determined that Site RIV-8401 is not unique and not significant under CEQA criteria due to a lack of both subsurface deposit and the ability to provide any further research potential. (BFSA, 2016a, pp. 4.0-11 and 4.0-12 and 4.0-14 through 4.0-19)

Site RIV-8402

Site RIV-8402 was recorded in 2007 and characterized as four milling slicks on three granitic outcrops. The 2014 investigation conducted by BFSA confirmed the presence of the bedrock milling features recorded in 2007 and identified two additional milling features and a historic trash scatter. The testing program for Site RIV-8402 consisted of recording the five bedrock milling features, collecting a sample of the historic diagnostic artifacts from the trash scatter and conducting subsurface investigations. During the testing program, 11 STPs were placed in the vicinity of the bedrock milling features. Subsurface cultural materials were encountered in one STP, which was placed within the historic trash scatter. Recovery from the STP included broken glass, metal fragments, a glass vessel fragment, and stoneware and earthenware ceramic fragments. (BFSA, 2015a, p. 4.0-11)

BFSA collected 43 historic artifacts from the historic trash scatter located within Site RIV-8402. The analysis of the assemblage identified refuse deposition from primarily one period of dumping with the highest level of intensity correlating between the 1880s and 1910s. Based on the components of the assemblage (consumer and household items), BFSA concluded that it is likely that the materials represent a sample of refuse generated by a nearby household. BFSA concluded that the historic component of Site RIV-8402 is not significant, as single episodes of historic dumping are common for rural areas and the items discarded could not be associated with any specific household or group of people. (BFSA, 2015a, p. 4.0-34)

Based upon BFSA's surface inspection across the Building D Site and the STP results, Site RIV-8402 is characterized as a temporary seasonal prehistoric milling location that lacks any encampment or long-term use. These milling features are common to Late Prehistoric subsidence patterns for the region and match the pattern of milling stations to the north and west of the Building D Site. (BFSA, 2015a, p. 4.0-34) For these reasons, BFSA determined that Site RIV-8402 is not unique and not significant under CEQA.

2. *Building E Site*

The methodology employed by BFSA for the cultural resources assessment of the Building E Site consisted of an institutional records search at the Eastern Information Center, an intensive pedestrian survey, significance testing of three prehistoric milling sites, and additional field visits accompanied by the County Geologist, County Archaeologist, and representatives of the Pechanga Band of Luiseño Indians and Soboba Band of Luiseño Indians. Refer to *Technical Appendix D2* for a detailed description of the archaeological records search, the field methodology, and the laboratory methods employed by BFSA for the Building E Site (BFSA, 2016a, Section 3.0 Methdology). Please note that the area of study covered by *Technical Appendix D2* includes 12.1 acres that are no longer within the Building E Site boundary because *Technical Appendix D2* was prepared prior to the Project Applicant's decision to reduce the size of the Building E Site to its current configuration. As such, information contained in *Technical Appendix D2* that pertains to these 12.1 acres (west of the currently-proposed Building E Site) and that are no longer in the Project site boundary is not applicable to the discussion herein of potential on-site impacts. An archaeological records search for the (formerly larger) Building E Site and the surrounding area within a one-mile radius was conducted by the EIC at UCR. The EIC reported that two cultural resources (RIV-1330/H and RIV-8901) were previously recorded as occurring within the (formerly larger) Building E Site, which still fall within the currently-proposed smaller Building E Site. (BFSA, 2016a, pp. 3.0-1 and 4.0-1)

The topography of the Building E Site is characterized by an east-facing slope on the west side of the property and an ephemeral drainage in the southwestern corner. With the exception of the east-facing slope, the remainder of the property is flat. During the pedestrian survey conducted by BFSA on December 29, 2014, the Building E Site was observed as disturbed by past agricultural use and the property appeared to have been cleared and tilled in the past. Subsequent field visits in 2015 and 2016 affirmed these findings. This characterization of a disturbed agricultural landscape is relevant to the consideration of the presence of cultural resources within the area; disturbance can result in the damage and removal of resources and/or can make visually obscured resources more visible. Many areas in and around the Building E Site have been disturbed by agricultural use and to a lesser extent by the construction of the water tank adjacent to the southwest corner of the Building E Site. (BFSA, 2016a, p. 4.0-8)

As mentioned above, the records searches for the (formerly larger) Building E Site identified two cultural resources (RIV-1330/H and RIV-8901) on the Building E Site and both of the sites were recorded as continuing off the Building E Site to adjacent properties. As a result of BFSA's 2014 field survey, RIV-1330/H and RIV-8901 were confirmed to be present. In addition, one prehistoric milling station site was discovered. DPR primary site record forms were prepared by BFSA for the discovered prehistoric milling station (RIV-11,874) and site update forms were prepared for sites RIV-1330/H and RIV-8901. A site significance testing program was undertaken by BFSA to evaluate Site RIV-1330/H, Site RIV-8901, and Site RIV-11,874 under CEQA criteria for significance, as described below. (BFSA, 2016a, p. 1.0-2)

When considering the association of RIV-1330/H, RIV-8901, and RIV-11,874 to a possible cultural landscape, the County determined that the Pechanga Tribe has not provided geographical definition to a cultural landscape encompassing the Building E Site in terms of the size and scope of the landscape. Further, there is a lack of substantial evidence upon which the County can conclude that RIV-1330/H, RIV-8901, and RIV-11,874 are individually or collectively unique archaeological resource(s) that significantly contribute to the integrity of a possible cultural landscape. The preponderance of evidence provided in *Technical Appendix D2* and in confidential communications between Riverside County, the Pechanga Tribe, and BSFA, indicate that RIV-1330/H, RIV-8901, and RIV-11,874 are not significant under CEQA. In addition, there is a lack of substantial evidence to consider the landscape a TCR as defined by Public Resources Code § 21074 and § 5024.1. AB 52, Section 21074(b), requires that for a cultural landscape to be a TCR, the landscape must meet the criteria of a TCR and be defined in terms of "size and scope of the landscape." Because the substantial evidence that is needed to conclude that the subject property is a cultural landscape is lacking, the Project site is deemed by Riverside County as part of neither a cultural landscape nor a TCR under AB 52. Additional information is provided below about each site to support this conclusion.

Site RIV-1330/H

BFSA identified 13 milling features within the formerly larger Building E Site, scattered on various exposed bedrock outcrops. Within the currently-proposed Building E Site, there are only three milling features. Due to the disturbance of a large portion of the Building E Site by the modern construction of the existing off-site water tank, fewer recorded milling features were recorded during the 2014 study than in previous studies. BFSA observed and collected only three surface artifacts consisting of a mano, and two metate fragments. Due to the fact that all subsurface tests were negative and long berms of mounded dirt are located along the east side of the Building E Site, BFSA reached the conclusion that grading and clearing activities conducted in conjunction with the site preparation for the new off-site water tank resulted in the scraping away of the topsoil within Site RIV-1330/H to create soil berms downslope of the water tank. The berms are thought to have been intended to be erosion control features. The grading of the topsoil within Site RIV-1330/H into berms resulted in the removal of any artifact-containing soil in areas where past studies indicated that artifacts were discovered. The original site form for Site RIV-1330/H previously recorded (Swenson, 1978), noted the possibility of rock art at this location. It was unclear in 1978 if rock art was actually present on the site due to the high level of graffiti that was present at that time, and which continues to this day. BFSA did not observe any rock art at Site RIV-1330/H during their field visits and verified that the possible rock art is absent from the site.

Because Site RIV-1330/H did not produce any evidence of subsurface cultural deposits as part of BFSA's study, BFSA concluded that Site RIV-1330/H is not significant under CEQA criteria due to the lack of both a subsurface deposit and the ability to provide any further research potential. (BFSA, 2016a, pp. 4.0-29 through 4.0-42)

After a review of *Technical Appendix D2*, and in consultation with the Pechanga Tribe as part of the AB 52 consultation process, the County of Riverside required that prior to the initiation of any grading

for the Building E Site, that pollen and protein residue analyses be conducted for existing bedrock milling features. Although BFSA determined that superficially the milling features of RIV-1330/H appeared to be poor candidates for this type of test, BFSA completed the analysis to assure the County and Native American community that all possible research efforts were exhausted prior to the removal of the milling features during development of the Building E Site. Residue analyses are used to identify the presence of prehistoric and historic food and plants that may have been exploited by the native inhabitants of a given site. The pollen and protein residues identified by the analysis process include those present in plant tissues and animals. (BFSA, 2016a, p. 5.0-1)

For Site RIV-1330/H, pollen and protein residue analyses were conducted to investigate potential evidence of floral remains, plant proteins, and animal proteins still present on the milling features identified within the Building E Site. The goal was to provide paleoenvironmental and dietary data for Site RIV-1330/H, which is assumed to be representative of other milling features on the Project site. Thirteen (13) milling features were identified at RIV-1330/H (on- and off-site of the currently proposed Building E Site) with a total of forty-two (42) separate milling elements. These elements include four mortars, one basin, four rubs, and 33 slicks. Based upon the frequency of milling features and the condition of those features, the Riverside County Archaeologist suggested the sampling of eight milling elements and a single (1) artifact (i.e., mano). All sampling was conducted by BFSA and the samples were submitted to PaeloResearch Institute, Inc. in Golden, Colorado for analysis. (BFSA, 2016a, pp. 4.0-42 and 4.0-44). The analysis identified a range of potential protein residues and pollens, which were prehistorically present within Site RIV-1330/H (BFSA, 2016a, p.5.0-1). The analysis results are included as Appendix F of *Technical Appendix D2*. Although the results provided environmental information about the plants and animal species that were once present in the area, the analyses did not reveal any information that would indicate that RIV-1330/H is unique or significant among other similar sites found throughout southern California that had similar environmental conditions. Further data analysis is not warranted, as it would only add similar information to the current body of knowledge.

Site RIV-8901

The portion of Site RIV-8901 that extends into the formerly larger Building E Site consists of 10 bedrock milling features situated on a moderate, east-facing slope. Within the currently-proposed Building E Site, there is only one milling feature. The elements of Site RIV-8901 previously identified off-site were recorded with the same characteristics as scattered bedrock outcrops with occasional evidence of minimal milling use. Aside from the milling features observed, no surface artifacts or evidence of potential cultural deposits was detected by BFSA. (BFSA, 2016a, p. 4.0-45) A series of 24 STPs were excavated around the milling feature in order to determine if any associated surface artifacts were present. None of the STPs produced any artifacts or evidence of a subsurface cultural deposit. Based upon the surface inspection across Site RIV-8901 and the STP results, Site RIV-8901 is characterized by BFSA as a temporary seasonal milling location that lacks any evidence of encampment or long-term use. This type of site is common to the Late Prehistoric subsistence pattern for the region and matches the pattern of milling stations to the north and east of the Building E Site. Because the study of Site RIV-8901 did not produce any artifacts or evidence of a subsurface deposit,

it was evaluated as not significant under CEQA criteria due to a lack of both a subsurface deposit and the ability to provide any further research potential. (BFSA, 2016a, pp. 1.0-3 and 4. 0-45 through 4.0-61)

Site RIV-11,874

Site RIV-11,874 is an isolated milling station that is part of the pattern of milling stations reported in the surrounding area. Site RIV-11,874 is located on a single bedrock exposure on the Building E Site. Aside from the milling feature observed, no surface artifacts or evidence of potential cultural deposits were detected by BFSA. This is consistent with the information for Site RIV-8901 to the north and east, where milling stations lacked any artifact collection. The single milling feature at Site RIV-11,874 contained a single slick. Three STPs were excavated around the milling feature in order to determine if any subsurface deposits were present. None of the STPs produced any artifacts or evidence of a subsurface cultural deposit. Based upon the surface inspection across Site RIV-11,874 and the results of the STPs, Site RIV-11,874 is determined by BFSA as a temporary seasonal milling location that lacks any evidence of encampment or long-term use. This type of site is common to the Late Prehistoric subsistence pattern for the region and matches the pattern of the milling station to the north and east of the Building E Site. (BFSA, 2016a, pp. 4.0-62 through 4.0-66) For this reason, BFSA concluded that Site RIV-11,874 is not significant under CEQA.

4.5.2 APPLICABLE REGULATORY SETTING

❑ California Code of Regulations (CCR) Title 14, Chapter 3, § 15064.5

California Code of Regulations, Title 14, Chapter 3, § 15064.5, "Determining the Significance of Impact to Archaeological and Historical Resources," establishes the procedure for determining the significance of impacts to archeological and historical resources in CEQA compliance documents, as well as classifying the type of resource. The evaluation of cultural resources under CEQA in this EIR is based upon the definitions of resources provided in § 15064.5. According to CEQA § 15064.5(a), the term "historical resources" shall include the following:

> *(1) A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources.*
>
> *(2) A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.*
>
> *(3) 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 may be considered to be an historical resource, provided the lead agency's*

determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code SS5024.1, Title 14 CCR, Section 4852) including the following:

(A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

(B) Is associated with the lives of persons important in our past;

(C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

(D) Has yielded, or may be likely to yield, information important in prehistory or history.

(4) The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1(j) or 5024.1.

❑ California Health and Safety Code, Division 7, Chapter 2, § 7050.5

California Health and Safety Code § 7050.5 makes it illegal for persons to knowingly mutilate or disinter, disturb, or willfully remove any human remains in or from any location other than a dedicated cemetery without authority of law, except as provided in § 5097.99 of the Public Resources Code. Section 5097.94 also establishes procedures for the identification and appropriate handling of human remains, should they be discovered inadvertently. The procedures require notice to the coroner of the county in which the human remains are discovered. If the coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, the corner is required to contact the California Native American Heritage Commission (NAHC).

❑ California Public Resources Code, Division 5, Chapter 1.75, § 5097.98

In the event of discovery of Native American human remains, California Public Resources Code § 5097.98 requires the California NAHC to contact the most likely descendant of the deceased Native American within 48 hours of discovery. California Public Resources Code § 5097.98 also establishes procedures to allow the most likely descendant to inspect the remains and recommend a means of disposition.

❑ California Senate Bill 18 (SB18) (Chapter 905, Statutes of 2004)

The California Office of Planning and Research (OPR) is required to implement various long range planning and research policies and goals that are intended to shape statewide development patterns and

influence the quality of the state's environment. California Senate Bill (SB) 18 required that the OPR guidelines contain advice, developed in consultation with the NAHC for consulting with California Native American tribes for the preservation of, or the mitigation of impacts to, specified Native American places, features, and objects. SB18 also required those guidelines to address procedures for identifying the appropriate California Native American tribes, for consultation. SB18 requires that, prior to the adoption or amendment of a city or county's general plan, the city or county conduct consultations with California Native American tribes for the purpose of preserving specified places, features, and objects (known as Traditional Tribal Cultural Places) that are located within the city or county's jurisdiction. (See Senate Bill 18 Chapter 905 for full context) (California State Legislature, 2004). The consultation process must be completed prior to project approval. Because the proposed Project includes a General Plan Amendment, the County of Riverside as the CEQA lead agency for the proposed Project is subject to all requirements associated with the SB 18 process for Native American consultation.

❑ California Assembly Bill No. 52 (AB52), 2014

California Assembly Bill 52 (AB52) Chapter 532 is an act to amend Section 5097.94 of, and add Sections 21073, 21074, 21080.3.1, 21080.3.2, 21802.3, 21083.09, 21084.2 and 21084.3 to the California Public Resources Code, relating to Native Americans. AB 52 Chapter 532 was approved by the California Governor on September 25, 2014. (Assembly Bill No. 52 Chapter 532, 2014)

If the tribes desire notification of proposed projects in that area that may cause a substantial adverse change in the significance of a cultural resource, AB52 requires that Native American tribes send written notice of their geographic areas of traditional and cultural affiliation to CEQA lead agencies. The CEQA lead agency is then required to provide such notification and consult with the tribe(s) if the tribe(s) requests consultation.

The provisions listed in AB52 are applicable to projects that have a notice or preparation or a notice of negative declaration filed on or after July 1, 2015. By requiring the CEQA lead agency to consider the effects relative to cultural resources and to conduct consultation with California Native American tribes, AB52 imposes a state-mandated local program. AB52 additionally requires the NAHC to provide each California Native American tribe, as defined, on or before July 1, 2016, with a list of all public agencies that may be a lead agency within a geographic area in which the tribe is traditionally or culturally affiliated; the contact information of those agencies; and information on how the tribe may request those public agencies to notify the tribe of projects within the jurisdiction of those public agencies for the purposes of requesting consultation. See AB52 Chapter 532 for full context (Assembly Bill No. 52 Chapter 532, 2014).

According to CEQA Statute § 21074.

(*a*) *"Tribal cultural resources" are either of the following:*

(1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

(A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.

(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. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

(b) A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

(c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

4.5.3 BASIS FOR DETERMINING SIGNIFICANCE

For purposes of definition herein, the terms "site" and "resource" can be used interchangeably. An archaeological site, meaning a specific physical place where artifacts or features are present, is a cultural resource; however, "cultural resources" is a broader term and can include non-archaeological sites such as landscapes, historic districts, transportation systems, etc. (BFSA, 2016a). The proposed Project would result in a significant impact to cultural resources if the Project or any Project-related component would:

Historic Resources

a) Alter or destroy an historic site;or

b) Cause a substantial adverse change in the significance of a historical resource as defined in California Code of Regulations, Section 15064.5;

Archaeological Resources

a) Alter or destroy an archaeological site;

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to California Code of Regulations, Section 15064.5;

c) Disturb any human remains, including those interred outside of formal cemeteries;

d) Restrict existing religious or sacred uses within the potential impact area; or

e) Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074.

4.5.4 IMPACT ANALYSIS

Historic Resources
Threshold a) Would the Project alter or destroy an historic site?
Threshold b) Would the Project cause a substantial adverse change in the significance of a historical resource as defined in California Code of Regulations, Section 15064.5?

According to County of Riverside EIR No. 521 Table 4.9-A, *Cultural Resources of Riverside County*, the Project site does not contain any federal, State, and/or county resource as recorded by the National Register of Historic Places (NHRP), California Registered Historic Landmarks Architecture (CRHL), California Points of Historic Interest (CPHI), or Riverside County Historical Landmarks (RCHL). In addition, according to County of Riverside EIR No. 521 Figure 4.9.2, *Historical Resources*, no known historic resources are located on the Project site. (Riverside County, 2015d, Table 4.9-A and Figure 4.9.2).

1. Building D Site

Under existing conditions, the Building D Site is generally vacant with the exception of a single mobile home residence and associated outbuildings that are modern and do not meet the definition of an historical resource pursuant to California Code of Regulations (CCR) Section 15064.5. (BFSA, 2015a, p. 4.0-8). A field survey of the Building D Site by BFSA identified two prehistoric sites (RIV-8401 and RIV-8402). Site RIV-8402 was determined by BFSA to have a small historic component consisting of a trash scatter. BFSA collected and analyzed 43 historic artifacts from the historic trash scatter and identified the scatter as refuse disposition from primarily one period of dumping from a nearby household with the highest level of intensity correlating between the 1880s and 1910s. Single episodes of historic refuse dumping are common for rural areas and the items discarded could not be associated with any specific household or group of people or any intact deposit; therefore, based on the criteria listed in CEQA Guidelines, the trash scatter associated with Site RIV-8402 does not meet the definition of historical resources as defined in California Code of Regulations § 15064.5. (BFSA, 2015a, p. 4.0-34 through 4.0-35) For these reasons, the Project as proposed on the Building D Site would not alter or destroy an historic site and would not cause a substantial adverse change in the significance of a historical resource as defined in California Code of Regulations Section 15064.5. Impacts are less-than-significant and no mitigation is required.

2. Building E Site

Under existing conditions, the Building E Site is vacant. Site RIV-1330/H was previously recorded on the Building E Site as being associated with a small historic component associated with the Val Verde Tunnel, a historic water project located approximately 1.0 mile south of the Building E Site. However, during BFSA's field investigations in 2015, the concrete cistern previously identified on the formerly larger Building E Site (and off-site under the currently-proposed smaller Building E Site) was observed to be barely visible and filled with dirt. As such, BFSA was unable to link the cistern with

the Val Verde Tunnel (as linked in previous studies) or with any adjacent historic land use. Lacking any clear association with the water conduit system, BFSA determined that the feature has no linkage with the historic water project and, therefore, is not considered a significant historic resource under CEQA as defined in California Code of Regulations § 15064.5. (BFSA, 2016a, p. 5.0-1) For these reasons, the Project as proposed on the Building E Site would not alter or destroy an historic site and would not cause a substantial adverse change in the significance of a historical resource as defined in California Code of Regulations Section 15064.5. Impacts are less-than-significant and no mitigation is required.

Archaeological Resources

Threshold a) Would the Project alter or destroy an archaeological site?

Threshold b) Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to California Code of Regulations, Section 15064.5?

1. Building D Site

As described in Subsection 4.5.1, two archaeological sites are located on the Building D Site. Site RIV-8401 (a bedrock milling feature) and Site RIV-8402 (four milling slicks on three granitic outcrops) are recorded as prehistoric resource collection and food processing sites with no subsurface components and reduced integrity due to agricultural use of the surrounding land. Based on the definition of a significant historic resource as listed in CEQA Guidelines § 15064.5, BFSA determined that neither Site RIV-8401 or Site RIV-8402 are currently listed in or eligible for listing in the California Register (Criteria 1 and 2). Also, Site RIV-8401 and Site RIV-8402 do not meet the criteria to be deemed significant under § 15064.5, because Site RIV-8401 and Site RIV-8402 do not contain information of public interest needed to answer important scientific research questions, do not have special and particular qualities, and are not directly associated with a scientifically recognized important prehistoric or historic event or person. In addition, the resources are not unique. CEQA Statute §21083.2 states that an archaeological resource is not unique if there is not a high probability that it contains information of public interest needed to answer important scientific research questions; does not have special and particular qualities such as being the oldest of its type or the best available example of its type; and is not directly associated with a scientifically recognized important prehistoric or historic event or person. (BFSA, 2015a, p. 5.0-1)

Significance testing conducted by BFSA revealed that Site RIV-8401 lacks subsurface artifacts, subsurface deposits, and further research potential. Although Site RIV-8402 contained a historic trash scatter, an evaluation of the scatter by BFSA determined that the scatter is associated with an unidentifiable household common to Riverside County in the time period of the 1880s to 1910s and is not unique or significant under CEQA. Site RIV-8402 is characterized as a temporary seasonal prehistoric milling location that lacks any encampment or long-term use. These milling features are common to Late Prehistoric subsidence patterns for the region and match the pattern of milling stations to the north and west of the Building D Site. (BFSA, 2015a, p. 4.0-34) For these reasons, BFSA

determined that Site RIV-8402 is not unique and not significant under CEQA. Therefore, based on the criteria listed in CEQA Guidelines § 15064.5, the Project as proposed on the Building D Site would not alter or destroy a known, unique archaeological site or cause a substantial adverse change in the significance of a unique archaeological resource. The Project's direct impacts to Site RIV-8401 and Site RIV-8402 would be less than significant and mitigation is not required.

As previously discussed, the majority of the Building D Site has been disturbed. As such, there is a potential that once-present surface artifacts have become buried or otherwise obscured from sight. The Project's mass grading and excavation activities would disturb the entire Building D Site and there is a potential that buried archaeological resources may be unearthed. If archaeological resources are unearthed during Project construction that meet the definition of a significant archaeological resource as defined by California Code of Regulations § 15064.5, there is a potential that the resource(s) would be significantly impacted if not property identified and treated. Thus, there is a potential for the Project to cause significant impacts to previously undiscovered significant archaeological resources on the Building D Site. Refer to Subsection 4.5.7 for applicable mitigation measures.

2. Building E Site

As described in Subsection 4.5.1, three archaeological resources are located on the Building E Site. Site RIV-1330/H (three bedrock milling features scattered on various exposed bedrock outcrops), Site RIV-8901 (one bedrock milling feature situated on a moderate, east-facing slope) and Site RIV-11,874 (an isolated milling station) were all determined by BFSA to not meet the definition of a significant resource under CEQA Guidelines § 15064.5, because they do not contain information of public interest needed to answer important scientific research questions; do not have special and particular qualities; and are not directly associated with a scientifically recognized important prehistoric or historic event or person. Also, these sites are not unique; under CEQA Statute §21083.2 states that an archaeological resource is not unique if there is not a high probability that it contains information of public interest needed to answer important scientific research questions; does not have special and particular qualities such as being the oldest of its type or the best available example of its type; and is not directly associated with a scientifically recognized important prehistoric or historic event or person. The historic component of RIV-1330/H was also determined not to be significant and not unique. (BFSA, 2016a, p. 6.0-1)

The milling features that are part of Site RIV-1330/H, Site RIV-8901, and Site RIV-11,874 located within the Building E Site's grading footprint would be directly impacted by the Project. These impacts are less-than-significant because the resources do not meet the definition of a significant resource under CEQA Guidelines § 15064.5 or the definition of a unique resource under CEQA Statute §21083.2.

As previously discussed, the majority of the Building E Site has been disturbed. As such, there is a potential that once-present surface artifacts have become buried or otherwise obscured from sight. The Project's mass grading and excavation activities would disturb the 21.5-acre Building E Site and there is a potential that buried archaeological resources may be unearthed. If archaeological resources are unearthed during Project construction that meet the definition of a significant archaeological resource

as defined by California Code of Regulations § 15064.5, there is a potential that the resource would be significantly impacted if not properly identified and treated. Thus, there is a potential for the Project to cause significant impacts to previously undiscovered significant archaeological resources on the Building E Site. Refer to Subsection 4.5.7 for applicable mitigation measures.

Archaeological Resources
Threshold c) Would the Project disturb any human remains, including those interred outside of formal cemeteries?

Neither the Building D Site nor the Building E Site contain a cemetery and no known formal cemeteries are located in the immediate vicinity of the Project site. Also, there are no known human remains on the Project site. The proposed Project's mass grading and excavation (utility trenching) activities would disturb the entire Building D Site and the Building E Site. During ground-disturbing construction activities, there is a remote potential that human remains may be unearthed. This same potential for the discovery of human remains occurs on nearly every construction site that disturbs an undeveloped ground surface.

If human remains are encountered during Project construction, the construction contractor would be required by law to comply with California Health and Safety Code, Section 7050.5 "Disturbance of Human Remains" and Public Resources Code Section 5097.98. Pursuant to § 7050.5(b) and (c), if human remains are discovered, the County Coroner must be contacted and if the Coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, the Coroner is required to contact the NAHC by telephone within 24 hours. Pursuant to California Public Resources Code § 5097.98, whenever the NAHC receives notification of a discovery of Native American human remains from a county coroner, the NAHC is required to immediately notify those persons it believes to be most likely descended from the deceased Native American. The descendants may, with the permission of the owner of the land, or his or her authorized representative, inspect the site of the discovery of the Native American human remains and may recommend to the owner or the person responsible for the excavation work, the means for treatment or disposition, with appropriate dignity, of the human remains and any associated grave goods. The descendants are required to complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. According to Public Resources Code § 5097.94(k), the NAHC is authorized to mediate disputes arising between landowners and known descendants relating to the treatment and disposition of Native American human burials, skeletal remains, and items associated with Native American burials.

With mandatory compliance to California Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98, any potential impacts to human remains, including human remains of Native American descent, would be reduced to less than significant.

Archaeological Resources
Threshold d) Would the Project restrict existing religious or sacred uses within the potential impact area?

BFSA's analysis of the historic and archaeological site components and artifacts identified on the Building D Site and the Building E Site identified in Subsections 4.5.1B and 4.5.1C, did not identify any Native American religious, ritual, or other special activities. In addition, BFSA requested a review of the Sacred Lands File (SLF) by the NAHC to determine if any recorded Native American sacred sites or locations of religious or ceremonial importance are present within one-mile of the Building D Site and the formerly larger Building E Site. The NAHC SLF did not indicate the presence of a sacred site within the search radius. A list of Native American contacts was also provided by the NAHC and non-confidential correspondence letters are contained in Appendix D of *Technical Appendix D1*. (BFSA, 2015a, p. 3.0-5) BFSA did not receive any direct responses to these inquiries.

As part of the SB18 and AB52 consultation processes required by State law, Riverside County sent notification of the proposed Building D Site project and formerly larger Building E Site project to the following Native American tribes with possible traditional or cultural affiliation to the area: Agua Caliente Band of Cahuilla Indians; San Manuel Band of Mission Indians, Pala Band of Mission Indians, Morongo Band of Mission Indians, Pechanga Band of Luiseño Indians; Rincon Band of Luiseño Indians; and the Soboba Band of Luiseño Indians. The Pechanga Band of Luiseño Indians and the Soboba Band of Luiseño Indians requested consultation. The Pechanga Band of Luiseño Indians stated in their written responses that the Project site is located in a culturally sensitive area within the Pechanga's aboriginal territory and part of Payómkawichum (Luiseño). (Pechanga, 2015) Field visits conducted by the County Archaeologist in the presence of Pechanga Band of Luiseño Indians and the Soboba Band of Luiseño Indians representatives did not reveal any religious or sacred uses of the property. Residue test results from milling sites in Building E Site revealed that some of the milled materials may have had medicinal purposes, but there is no evidence to suggest that there was religious or sacred use of the property.

The proposed Project's mass grading and excavation activities would disturb the entire Building D Site and the entire Building E Site. During ground-disturbing construction activities, there is a remote potential that religious or scared resources may be unearthed, the potential impacts to which are evaluated above under Threshold (b). Because the property is not used for religious or sacred purposes, development of the proposed Project has no potential to restrict a religious or sacred use. Thus, no impact would occur.

Archaeological Resources
Threshold e) Would the Project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074?

As part of the SB18 and AB52 consultation processes required by State law, Riverside County sent notification of the proposed Building D Site project and formerly larger Building E Site project to the

following Native American tribes with possible traditional or cultural affiliation to the area: Agua Caliente Band of Cahuilla Indians; San Manuel Band of Mission Indians, Pala Band of Mission Indians, Morongo Band of Mission Indians, Pechanga Band of Luiseño Indians; Rincon Band of Luiseño Indians; and the Soboba Band of Luiseño Indians. The Pechanga Band of Luiseño Indians and the Soboba Band of Luiseño Indians responded and requested consultation. The Pechanga Band of Luiseño Indians asserted in their initial written response that the Project site is located in a culturally sensitive area within the Pechanga's aboriginal territory as evidenced by Payómkawichum (Luiseño) cultural resources in the area. (Pechanga, 2015)

Field visits of the Project site conducted by the County Archaeologist in the presence of the Pechanga Band of Luiseño Indians and the Soboba Band of Luiseño Indians representatives did not reveal any additional cultural resources on the Project site beyond those identified by BFSA as follows: Site RIV-8401 (a bedrock milling feature) and Site RIV-8402 (four milling slicks on three granitic outcrops) on the Building D Site, and Site RIV-1330/H (three milling features scattered on various exposed bedrock outcrops), Site RIV-8901 (one bedrock milling feature situated on a moderate, east-facing slope) and Site RIV-11,874 (an isolated milling station) on the Building E Site.

BFSA subsequently performed a pollen and residue analysis of bedrock milling features for Site RIV-1330/H, the results of which are contained in Appendix F of *Technical Appendix D2* (BFSA, 2016a, p.5.0-1). Although the results provided environmental information about the plants and animal species that were once present in the area, the analyses did not reveal any information that would indicate that RIV-1330/H or other nearby sites are unique or significant among other similar sites found throughout southern California that had similar environmental conditions. Further data analysis is not warranted, as it would only add similar information to the current body of knowledge which indicates that the archaeological resources present on the Project site do not meet the definition of a significant archaeological resource under CEQA Guidelines § 15064.5. Although the Pechanga Band and Soboba Band of Luiseño Indians consider these features as important links to their ancestors, the Tribes have not provided substantial evidence that the on-site features qualify as significant tribal cultural resources under the law.

According to CEQA Statute § 21074(a), "Tribal cultural resources" are either of the following:

> *(1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:*
>
> *(A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.*
>
> *(B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.*

As indicated earlier in this subsection, the archaeological resources on the Project site have cultural value to Native American tribes, but are not listed in a local register of historical resources or in the

California Register of Historic Places. Further, there is no substantial evidence to indicate that the resources are eligible for listing in the California Register. To be eligible for the Register, (Pub. Res. Code SS5024.1, Title 14 CCR, Section 4852), the resource must have including the following:

> *(A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;*
>
> *(B) Is associated with the lives of persons important in our past;*
>
> *(C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or*
>
> *(D) Has yielded, or may be likely to yield, information important in prehistory or history.*

The archaeological resources on the Project site do not meet any of the four criteria listed above to be eligible for the California Register. The Pechanga Tribe opined in communications with the County that the archaeological sites recorded on the property and a larger presumed tribal cultural landscape are eligible under Criteria C and D.

Regarding Criterion C, a resource must embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual, or possesses high artistic values. None of the archaeological sites on the Project site meet this criterion. The resources are comprised of milling features and a historic trash scatter that are not significant or unique when considered in context with other similar sites throughout southern California and the surrounding landscape. Repeated review of the property over the past several years has noted the absence of rock art, although possible rock art was noted at the site in a prior survey. If rock art was ever present at the site, it no longer exists. There is no evidence of "the work of an important creative individual" or "high artistic value" because a pictograph must be present in order to be evaluated, and none are present. Because the pictograph no longer exists, if it ever did, it lacks any form of integrity, and as a result, cannot be evaluated as a significant resource under Criterion C.

Regarding Criterion D, the Pechanga Tribe opined that because the area once contained archaeological resources in addition to those that are currently present, it will offer additional information that could add to the current body of information already available regarding land use, settlement patterns and the prehistoric lifeways of the region's traditional people. However, the archaeological evidence gathered during the field investigations at the subject property and documented in *Technical Appendices D1 and D2* has provided the substantial evidence from which to conclude that the research potential for each site has been exhausted. Although additional data may be available, that data would not substantially improve or change the understanding of the sites and would only produce data for data's sake. Additionally, no subsurface cultural resource deposits were identified within the Project site during the archaeological field surveys documented in *Technical Appendices D1 and D2.*

(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. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

Section 5024.1 of the Public Resources Code states that a cultural landscape is a TCR if the landscape is geographically defined in terms of the size and scope of the landscape and if it meets the definition of a "tribal cultural resource" as stated in CEQA Section 21074. As stated:

(b) A cultural landscape that meets the criteria of subdivision (a) [CEQA Statute § 21074(a)] is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

(c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a) [CEQA Statute § 21074(a)].

As noted above, the TCR must meet the eligibility criteria for the California Register of Historic Resources, which the Project site and resources on the Project site do not. Further, the size and scope of a potential cultural landscape that includes the Project site not been defined by the Tribe or any other entity. Thus, there is no substantial evidence to indicate that the Project site is a TCR.

Implementation of the proposed Project would directly impact Site RIV-8401 and Site RIV-8402 on the Building D Site and Site RIV-11,874 on the Building E Site, and a portion of Site RIV-1330/H and a portion of Site RIV-8901 on the Building E Site. The Project Applicant has also agreed to attempt to move some of the milling features within the Project's impact footprint into proposed landscaped areas on the Building D Site and Building E Site. The physical feasibility of moving the rocks that contain these features has been evaluated by the Riverside County Geologist, and mapping of the features that may be possible to move without damage has been provided to the Tribes. Because there is a lack of substantial evidence of a TCR being located on the property, impacts to tribal cultural resources would be less than significant.

4.5.5 CUMULATIVE IMPACT ANALYSIS

This cumulative impact analysis considers development of the Project site in conjunction with other development projects in the vicinity of the Project site resulting from full General Plan buildout in the parts of the Riverside County General Plan covered by the Harvest Valley/Winchester Area Plan (HVWAP), the Lakeview/Nuevo Area Plan (LNAP), and the Mead Valley Area Plan (MVAP), in addition to the City of Moreno Valley, the City of Perris, and the City of Riverside. An archaeological resources search conducted by BFSA reported that 73 cultural resources are located within a one-mile

radius of the Building D Site and the formerly larger Building E Site. The 73 cultural resources include 62 bedrock milling sites, two historic railroad tracks, one historic debris site, three historic residences, one World War II barracks, one historic trash deposit and one historic steel pipeline.

Record searches and field surveys of the Project site indicate the absence of significant historical sites and resources on the Project site. Therefore, the Project has no potential to contribute towards a significant cumulative impact to historical sites and resources, as defined in California Code of Regulations, § 15064.5.

Regarding archaeological resources, the proposed Project would directly impact Site RIV-8401 and Site RIV-8402RIV on the Building D Site and Site RIV-11,874 on the Building E Site, and a portion of Site RIV-1330/H and a portion of Site RIV-8901 on the Building E Site. The Project Applicant has offered to attempt the relocation of several milling sites into landscaped areas on Building D Site and Building E Site. Because none of the on-site cultural resources that would be impacted by the Project meet the definition of a significant or unique cultural resource pursuant to CEQA Guidelines § 15064.5, or are identified as a religious or scared use, the direct loss of these resources would be less than significant.

Notwithstanding the fact that the on-site archaeological sites are found to be not unique and not significant under CEQA, the Native American tribal groups from this area consider these features as important links to their ancestors. As part of the SB18 and AB52 consultation processes, the County of Riverside received information from the Pechanga Band of Luiseño Indians asserting that the Project area is part of a tribal cultural landscape extending several miles around the Project site and consisting of related archaeological sites associated with either the village of Qazáalku or a smaller (unnamed) village. The Tribe cited Tribal knowledge, oral history, internal Tribe records, ethnological documentation, and the archaeological research conducted for the Building D Site and formerly larger Building E Site by BFSA as the basis of this assertion, although a large majority of the documentation submitted by the Pechanga Tribe to Riverside County contained a summary of Tribal knowledge and oral tradition, supported by limited scientific analysis and ethnographic data. (Pechanga, 2015; Pechanga, 2016) While it is acknowledged that the archaeological resources identified on the Project site are part of Luiseño settlement and subsistence history, the substantial evidence that is required by CEQA to distinguish the Project site or the presumed larger cultural landscape as unique or significant among the many other lands inhabited by Native Americans across California and North America has not been provided. In AB 52 consultation communications with Riverside County, the Tribe refers to a tribal cultural landscape generally, but does not provide geographic definition as to the scope and boundaries of the landscape. Therefore, an analysis of cumulative effects on a geographically undefined landscape is speculative. Based upon a simple aerial photographic review of the Project site and the properties surrounding the Project site for several miles, any possible cultural landscape (the scale of which is undefined by the Pechanga Tribe) would lack integrity under existing conditions. This is evident based upon the amount of development, general environmental change, agriculture, and historic settlement that has occurred in and surrounding the Project site for the last 150 years. Integrity is a property's historic/prehistoric identity evidenced by the survival of physical characteristics from the property's historic or prehistoric period. The seven qualities of integrity are: location, setting,

feeling, association, design, workmanship, and materials. Together, evaluations of significance and integrity, when combined with historic research, documentation of existing conditions, and analysis findings, influence later treatment and interpretation decisions. AB 52, Section 21084.3(2A) states that integrity is of high importance when considering TCRs and their protection under CEQA. If the resources within the Project site, or on adjacent properties, do not meet the threshold for integrity, then the conclusion that an area is a cultural landscape that qualifies as a TCR cannot be made.

Further, a possible cultural landscape is not necessarily a tribal cultural resource (TCR) as defined under AB 52. AB 52 does not provide that all cultural landscapes qualify as TCRs unless the landscape meets the definition given in Public Resources Code § 21074(b). The preponderance of factual evidence available to Riverside County indicates that the resources present on the Project site do not meet the minimum thresholds under Public Resources Code § 21074(b) to qualify as a cultural landscape or TCR. Considering the fact that a cultural landscape and TCR are not present based on the definitions given in Public Resources Code § 21074(b), development of the Project as proposed, when considered in context with other cumulative development in the area, would have a less than cumulatively considerable impact on the cultural landscape.

In the unlikely event that significant archaeological resources are buried beneath the surface of the Project site, unearthed during Project construction activities, and not properly treated, the Project would significantly impact archeological resources. Other projects within the region would similarly have the potential to impact significant archaeological resources during ground-disturbing activities. Therefore, the Project's potential to directly impact subsurface archaeological deposits is a potential cumulatively considerable impact for which mitigation is required. Refer to Subsection 4.5.7 for applicable mitigation measures.

Finally, due to mandatory compliance required of all ground-disturbing construction activities with the provisions of California Health and Safety Code § 7050.5 as well as Public Resources Code § 5097 et. seq., human remains would be assured proper treatment if encountered. Because all other development projects within the region similarly would be required to comply with State law, any cumulative impact associated with human remains discovery would be reduced to below a level of significance.

4.5.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Historic Resources

Thresholds (a) and (b) for the Building D Site and Building E Site: Less-than-Significant Impact. The Project as proposed on the Building D Site would not alter or destroy an historic site and would not cause a substantial adverse change in the significance of a historical resource as defined in California Code of Regulations, § 15064.5.

Archaeological Resources

Threshold (a) and (b) for the Building D and Building E Site: Significant Direct and Cumulatively Considerable Impact. Five archaeological sites are located on the Project site, of which three would

be fully impacted by the Project and two would be partially impacted by the Project. None of the five sites meet the definition of a significant historic resource listed in CEQA Guidelines § 15064.5. Therefore, the Project would not alter or destroy an unique archaeological site or cause a substantial adverse change in the significance of a known, unique archaeological resource. Regardless, mitigation is provided herein to further reduce the already less-than-significant impacts. Project-related construction activities have the potential to unearth and adversely impact significant archaeological resources that may be buried beneath the ground surface and discovered during Project construction activities. Impacts would be significant on a direct and cumulatively considerable basis if discovered resources during construction are determined to be significant and are not properly identified and treated.

Threshold (c) for the Building D Site and Building E Site: Less-than-Significant Impact. There are no known human remains on the Project site. In the unlikely event that human remains are discovered during Project grading or other ground disturbing activties, compliance with the applicable provisions of the California Health and Safety Code § 7050.5 and California Public Resources Code § 5097 et. seq. is required. Mandatory compliance with State law would ensure that human remains, if encountered, are appropriately treated and would preclude the potential for signifcant impacts to Native American remains.

Threshold (d) for the Building D Site and Building E Site: No Impact. The Project has no potential to restrict a religious or sacred use.

Threshold (e) for the Building D Site and Building E Site: Less-than-Signficant Impact. Five archaeological sites are located on the Project site, of which three would be fully impacted by the Project and two would be partially impacted by the Project. None of the five sites meet the definition of a significant resource listed in CEQA Guidelines § 15064. In addition, because there is a lack of substantial evidence to conclude that the subject property is part of a cultural landscape, the Project site is deemed by Riverside County as part of neither a cultural landscape nor a TCR under AB 52. As such, tribal cultural resources as defined in Public Resources Code 21074 are not present on the Project site and impacts would be less than significant.

4.5.7 MITIGATION

Applicable County Regulations and Design Requirements

The following are applicable regulations and design requirements to which the Project is required to comply. Although these regulations and requirements technically do not meet CEQA's definition for mitigation, they are listed below for information purposes.

- Pursuant to California Health and Safety Code Section 7050.5, if human remains are encountered, no further disturbance shall occur until the Riverside County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b), human remains shall be left in place and free from disturbance

until a final decision as to the treatment and disposition has been made. In the event that the remains are determined to be of Native American origin, the Native American Heritage Commission (NAHC) shall be contacted by the Coroner within the period specified by law (24 hours). Subsequently, the Native American Heritage Commission shall identify the "Most Likely Descendant." The Most Likely Descendant shall then make recommendations and engage in consultation with-the property owner concerning the treatment of the remains as provided in Public Resources Code Section 5097.98. Human remains from other ethnic/cultural groups with recognized historical associations to the project area shall also be subject to consultation between appropriate representatives from that group and the County Archaeologist.

Mitigation Measures

MM 4.5-1 Prior to the issuance of grading permits, the developer/permit applicant shall enter into a monitoring agreement with the Pechanga and Soboba Native American Tribes. A Native American monitor shall be on-site during all initial ground disturbing activities and excavation of each portion of the project site including clearing, grubbing, tree removals, and trenching. In conjunction with an Archaeological Monitor, the Native American Monitor shall have the authority to temporarily divert, redirect, or halt the ground disturbance activities to allow identification, evaluation, and potential recovery of cultural resources. The developer/permit applicant shall submit a fully executed copy of the agreement to the County Archaeologist to ensure compliance with this condition.

MM 4.5-2 Building D Site: In accordance with the letter dated February 2, 2017 to Heather Thomson, County Archaeologist from Project Archaeologist Brian F. Smith and Associates, regarding "Relocation of Bedrock Milling Features Located Within Knox Business Park (Decker Parcels I and II" and as a condition of the grading permit for the Building D Site (Planning Case No. 36950), before construction activities are allowed to start, and using professional archaeological methods, any visible artifacts associated with Sites CA-RIV-8401 and CA-RIV-8402 shall be recovered and recorded, and photo documentation of each situ shall occur. The current Department of Parks and Recreation forms for the sites shall be updated, detailing which features were relocated, the process through which this was done, and updated maps using sub meter GIS technology to document the new location of each feature. The relocation information shall be included in a Phase IV Monitoring Report.

MM 4.5-3 Building E Site: In accordance with the letter dated February 2, 2017 to Heather Thomson, County Archaeologist from Project Archaeologist Brian F. Smith and Associates, regarding "Relocation of Bedrock Milling Features Located Within Knox Business Park (Decker Parcels I and II" and as a condition of the grading permit for the Building E Site (Planning Case No. 36962), before construction activities are allowed to start, and using professional archaeological methods, any visible artifacts

associated with Sites CA-RIV-1330H and CA-RIV-11874 shall be recovered and recorded, and photo documentation of each situ shall occur. The current Department of Parks and Recreation forms for the sites shall be updated, detailing which features were relocated, the process through which this was done, and updated maps using sub meter GIS technology to document the new location of each feature. The relocation information shall be included in a Phase IV Monitoring Report.

MM 4.5-4 Building E Site: Prior to issuance of a grading permit for Planning Case No. 36962, the developer/permit applicant shall provide evidence to the County Archaeologist that the following notes have been provided on the Grading Plan: "Temporary fencing shall be provided for the protection of the off-site parcel located to the immediate west during any grading activities within 100 feet of the western property boundary. The fence shall be installed under the supervision of the County approved archaeologist prior to commencement of grading or brushing and be removed only after grading operations have been completed."

MM 4.5-5 Prior to the issuance of grading permits, the developer/permit applicant shall provide evidence to the County of Riverside Planning Department that a County certified professional archaeologist has been contracted to implement a Cultural Resource Monitoring Program. A Cultural Resource Monitoring Plan shall be developed that addresses the details of all activities and provides procedures that must be followed in order to reduce the impacts to cultural and historic resources to a level that is less than significant as well as address potential impacts to undiscovered buried archaeological resources associated with this project. This document shall be provided to the County Archaeologist for review and approval prior to issuance of the grading permit. These measures shall include, but shall not be limited to, the following:

a) Archaeological Monitor: An adequate number of qualified monitors shall be present to ensure that all earth moving activities are observed; the monitors shall be on-site during all grading activities for areas to be monitored including any off-site improvements. Inspections will vary based on the rate of excavation, the materials excavated, and the presence and abundance of artifacts and features. The frequency and location of inspections will be determined by the Project Archaeologist.

b) Cultural Sensitivity Training: The Project Archaeologist and a representative designated by the Tribe shall attend the pre-grading meeting with the contractors to provide Cultural Sensitivity Training for all Construction Personnel. Training will include a brief review of the cultural sensitivity of the Project site and the surrounding area; what resources could potentially be identified during earthmoving activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified,

including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated; and any other appropriate protocols. This is a mandatory training and all construction personnel must attend prior to beginning work on the Project site. A sign-in sheet for attendees of this training shall be included in the Phase IV Monitoring Report.

c) Building D Site Controlled Grading: Several bedrock milling features at cultural sites CA-RIV-8401 and CA-RIV-8402 will be impacted during construction activities and the soils surrounding them will be disturbed. A controlled grading program will be developed by the Project Archaeologist and included in the Cultural Resources Monitoring Program. The controlled grading program shall require the systematic removal of the ground surface to allow for the identification, documentation and recovery of any subsurface cultural deposits. Results of the controlled grading program shall be included in the Phase IV Monitoring Report.

Building E Site Controlled Grading: Several bedrock milling features at cultural sites CA-RIV-8901, CA-RIV-1330/H and CA-RIV-11874 will be impacted during construction activities and the soils surrounding them will be disturbed. A controlled grading program will be developed by the Project Archaeologist and included in the Cultural Resources Monitoring Program. The controlled grading program shall require the systematic removal of the ground surface to allow for the identification, documentation and recovery of any subsurface cultural deposits. Results of the controlled grading program shall be included in the Phase IV Monitoring Report.

MM 4.5-6 If during ground disturbance activities, unanticipated cultural resources are discovered, the following procedures shall be followed:

a) All ground disturbance activities within 100 feet of the discovered cultural resource shall be halted and the applicant shall call the County Archaeologist immediately upon discovery of the cultural resource*. A meeting shall be convened between the developer, the project archaeologist**, the Native American tribal representative (or other appropriate ethnic/cultural group representative), and the County Archaeologist to discuss the significance of the find. At the meeting with the aforementioned parties, a decision is to be made, with the concurrence of the County Archaeologist, as to the appropriate treatment (documentation, recovery; avoidance, etc.) for the cultural resource.

b) Further ground disturbance shall not resume within the area of the discovery until the appropriate treatment has been accomplished.

* A cultural resource site is defined, for this condition, as being a feature and/or three or more artifacts in close association with each other, but may include fewer artifacts if the area of the find is determined to be of significance due to sacred or cultural importance.

** If not already employed by the project developer, a County approved archaeologist shall be employed by the project developer to assess the value/importance of the cultural resource, attend the meeting described above, and continue monitoring of all future site grading activities as necessary.

MM 4.5-7 Prior to building final, provide evidence to the satisfaction of the County Archaeologist that all archaeological materials recovered during the archaeological investigations (this includes collections made during an earlier project; such as testing of archaeological sites that took place years ago), have been curated at the Western Science Center, a Riverside County Curation facility that meets federal standards per 36 CFR Part 79 and therefore will be professionally curated and made available to other archaeologists/researchers and tribal members for further study. The collection and associated records shall be transferred, including title, and are to be accompanied by payment of the fees necessary for permanent curation. Evidence shall be in the form of a letter from the curation facility identifying that archaeological materials have been received and that all fees have been paid.

MM 4.5-8 Upon completion of the implementation phase, a Phase IV Cultural Resources Monitoring Report shall be submitted that complies with the Riverside County Planning Department's requirements for such reports for all ground disturbing activities associated with the grading permit. The report shall follow the County of Riverside Planning Department Cultural Resources (Archaeological) Investigations Standard Scopes of Work posted on the TLMA website. The report shall include results of any feature relocation or residue analysis required as well as evidence of the required cultural sensitivity training for the construction staff held during the required pre-grade meeting. A report documenting the field and analysis results and interpretation of the artifact and research data within the research context shall be completed and submitted to the satisfaction of the Lead Agency (County of Riverside) prior to issuance of any building permits. The report will include Department of Parks and Recreation (DPR) and Primary Archaeological Site Forms. A final copy shall be submitted to the Eastern Information Center (EIS) and Native American tribes that request a copy.

4.5.8 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Thresholds (a) and (b) for the Building D Site and the Building E Site: Less-than-Significant with Mitigation Incorporated. Implementation of Mitigation Measures MM 4.5-1 and MM 4.5-5through MM 4.5-8 would ensure that, if significant archaeological resources are unearthed during ground-disturbing construction activities, those resources are properly identified and appropriately treated as recommended by a qualified archaeologist and approved by the County Archaeologist. Also,

Mitigation Measures MM 4.5-2 through MM 4.5-5 would further reduce the already less-than-significant impacts associated with known resources on the site that are not significant and not unique under CEQA. With implementation of the required mitigation, the Project's potential to impact significant archaeological resources would be reduced to less than significant.

4.6 GEOLOGY AND SOILS

As discussed in EIR Section 3.0, *Project Description*, the proposed Project involves the development of two properties located south of Oleander Avenue and both east and west of Ellsworth Street (also called "Decker Road" in this EIR and its associated Technical Appendices) totaling approximately 58.6 acres. The Building D Site is located on approximately 37.1 acres east of Ellsworth Street, and the Building E Site is located on approximately 21.5 acres west of Ellsworth Street. Both properties are collectively referred to herein as the "Project site." For purposes of evaluation herein, the two properties are referred to individually as the "Building D Site" and the "Building E Site."

The analysis in this Subsection is based upon the following technical reports. All other sources used in this Subsection are listed in EIR Section 7.0, *References.*

The technical reports prepared for the Building D Site include the following:

- "Geotechnical Investigation, Infiltration Study, and Rock Rippability Report for the Proposed Decker Assemblage Industrial Site, Located at the Southeast Corner of Oleander Avenue and Decker Road," prepared by Matrix Geotechnical Consulting Inc., (hereafter, "Matrix") dated September 30, 2014, and appended to this EIR as *Technical Appendix E1* (Matrix, 2014).

- "Change of Engineer of Record, Response Report and Plan Review," prepared by Southern California Geotechnical (hereafter, SoCalGeo), dated June 16, 2016, and appendeded to this EIR as *Technnical Appendix E2* (SoCalGeo, 2016a).

The technical reports prepared for the Building E Site include the following. Please note that these reports were prepared prior to the Project Applicant's decision to reduce the size of the Building E Site to its current configuration; therefore, the following reports cover additional acreage (west of the Building E Site) that is no longer in the Project boundary. The currently proposed Building E Project was reviewed by the geotechnical engineer of record, with findings documented in a technical supplement placed in the front of *Technical Appendix E4*.

- "Geotechnical Investigation and Rock Rippability Report for the Proposed Decker II Assemblage Industrial Site, Located at the Southwest Corner of Oleander Avenue and Decker Road," prepared by Matrix, dated February 19, 2015, and appended to this EIR as *Technical Appendix E3* (Matrix, 2015).

- "Change of Engineer of Record, Response Report and Plan Review", prepared by SoCalGeo, dated August 2, 2016, and appended to this EIR as *Technical Appendix E4* (SoCalGeo, 2016b).

- "Geotechnical Report Update and Plan Review," prepared by SoCalGeo, dated January 27, 2017 and appended to this EIR at the front of *Technical Appendix E4* (SoCalGeo, 2017a).

4.6.1 EXISTING CONDITIONS

A. Regional Geologic Setting

The Project site is situated within a natural geomorphic province in southwestern California known as the Peninsular Ranges. The Peninsular Ranges province consists of several northwesterly-trending ranges truncated to the north by the east-west trending Transverse Ranges. Prior to the mid-Mesozoic, the region was covered by seas and thick marine sedimentary and volcanic sequences were deposited. The bedrock geology that dominates the elevated areas of the Peninsular Ranges consists of high-grade metamorphic rocks intruded by Mesozoic plutons. During the Cretaceous Period, extensive mountain building occurred during the emplacement of the southern California batholith. The Peninsular Ranges have been substantially disrupted by Tertiary and Quaternary strike-slip faulting along the Elsinore and San Jacinto faults. This tectonic activity has resulted in the present terrain (SoCalGeo, 2016a, p. 3) (SoCalGeo, 2016b, p. 3).

The primary available geologic reference applicable to the Project site is the Geologic Map of the Steel Park Quadrangle, Riverside County, California, published by Santa Barbara Museum of Natural History, 2003. A portion of the map relevant to the Project site is included as Plate 3 of *Technical Appendix E2*. The map indicates that the majority of the Project site is underlain by quartz diorite rocks of Cretaceous age. The quartz diorite rocks are described as gray to light gray, massive to more commonly gneissoid, composed mostly of plagioclase feldspar with the remainder of quartz, biotite, and hornblende. A portion of the northeastern corner of the Project site is mapped as older surficial sediments. These soils are described as alluvial sand and gravel. (SoCalGeo, 2016a, p. 3) (SoCalGeo, 2016b, p. 3)

The Project site is situated along the Perris Block, an eroded mass of Cretaceous and older crystalline rock. Thin sedimentary and volcanic units mantle the bedrock in a few places with alluvial deposits filling in the lower valley areas. The Perris Block, approximately 20 miles by 50 miles in extent, is bounded by the San Jacinto Fault Zone to the northeast, the Elsinore Fault Zone to the southwest, the Cucamonga Fault Zone to the northwest, and to the southeast by the fringes of the Temecula basin, where the boundary is ill-defined. The Perris Block in its entirety has been repeatedly uplifted and occasionally depressed since the beginning of Pliocene time (5.3± million years before present). These episodic movements have led to internal fracturing, shearing, and faulting, that are discontinuous and sporadic. (Matrix, 2015, Appendix E p. 2).

B. Soils and Bedrock

1. Building D Site

Artificial Fill

The northeast and southwest portions of the Building D Site contain undocumented artificial fill up to depths of six-to-seven feet below ground surface. The artificial fill in the northeastern portion of the Building D Site contains a substantial amount of crushed gravel and a dirt roadway surrounding the

crushed gravel area. The artificial fill in the southwestern portion of the property contains primarily fill soils of sands and silty sands (Matrix, 2014, p. 4).

Alluvium

Quaternary very old alluvial fan deposits exist directly below the fill materials in the northeastern and southwestern portions of the Building D Site and at the surface throughout the central-western and eastern portions of the property. These materials are comprised of permeable to non-permeable, light-pale brown to brown in color, medium dense to dense silts, clayey sands and silty sands. (Matrix, 2014, p. 8).

Near Surface Bedrock

Bedrock (Val Verde Tonalite) underlies most of the Building D Site beneath the veneer of artificial fill and alluvium (as described above). Observed bedrock was white-gray to gray and moderately hard to very hard. In isolated areas, the upper five to 24 feet of bedrock is weathered and soft to moderately hard. (Matrix, 2014, p. 9)

2. Building E Site

Artificial Fill

Artificial fill is located at the ground surface of the Building E Site, mainly within the southwestern, southern, and northeastern portions of the property. The fill is characterized as light-brown to brown, dry to damp, and loose to medium dense silty sands, sands, silts, and boulders that extend to depths ranging from two to 6.5 feet below the existing ground surface (Matrix, 2015, p. 6).

Alluvium

Quaternary alluvial fan deposits (both youthful and older alluvium) are located directly below the fill materials and at the surface throughout the majority of the Building E Site. The alluvial materials are characterized as silt, clayey sand, and silty sand, permeable to nonpermeable, light pale brown to brown in color, medium dense to dense, and were interfingered with caliche stringers, alluvial horizons directly above the bedrock, and colluvial deposits of silty-clayey material in the banks of the ephemeral drainages onsite. (Matrix, 2015, p. 6)

Near Surface Bedrock

Bedrock (Val Verde Tonalite) underlies most of the Building E Site beneath the veneer of artificial fill and alluvium (as described above). Several large granitic boulders are located in the western portion of the Building E Site. Val Verde Tonalite was observed to be white-gray to gray and was found to be in a moderately hard to very hard state. In select areas, the upper 5 to 24 feet was more weathered and considered to be in a soft to moderately hard state. (Matrix, 2015, p. 7)

C. Topography

The general topography of the Project site is sloping from west to east, with minor grade changes from north to south. The high point of the Project site is in the western portion of the Building E Site, at approximately 1,665 feet above mean sea level (AMSL), and the low-point of the Project site is in the eastern portion of the Building D Site at approximately 1,556 feet AMSL. The Project site's topographic conditions are illustrated on Figure 2-6, *USGS Topographic Map*, in Section 2.0, *Environmental Setting.*

1. Building D Site

The topography of the Building D Site is slightly sloping from west to east, with subtle grade changes from south to north. From west to east, the Building D Site descends from a high point of approximately 1,600 feet AMSL to 1,556 feet AMSL. From south to north, the Building D Site descends from a high point of approximately 1,580 feet AMSL to 1,575 feet AMSL. The topographic relief of the Building D Site is approximately 44-feet from west to east and approximately 5-feet from south to north. (Matrix, 2014, p. 5).

2. Building E Site

The topography of the Building E Site is moderately sloping from west to east, with subtle grade changes from north to south. From west to east, the Building E Site descends from a high point of approximately 1,665 feet AMSL to a low point of approximately 1,600 feet AMSL for a topographic relief of approximately 65-feet. The Building E Site has negligible topographic relief from north to south. (Matrix, 2015, p. 4).

D. Groundwater

The groundwater encountered during the geotechnical investigations of the Building D Site and the Building E Site is considered to be perched on the underlying impermeable bedrock and not representative of regional groundwater levels (SoCalGeo, 2016a, p. 4) (SoCalGeo, 2016b, p. 4). Regional groundwater levels are approximately 20 feet deep.

E. Seismic Hazards

The Project site is located in an area of southern California that is subject to strong ground motions due to seismic events (i.e., earthquakes). The geologic structure of southern California is dominated by northwest-trending faults associated with the San Andreas Fault system. As depicted on Figure 4.6-1, *Earthquake Fault Zones*, the nearest known active fault to the Project site is the San Jacinto fault, which is a major branch of the San Andreas Fault system, located approximately 8.9 miles northeast of the Project site. (Matrix, 2015, p. 8; Matrix, 2014, p. 10) (SoCalGeo, 2016a, p. 4) (SoCalGeo, 2016b) An active fault is defined by the United States Geological Survey (USGS) as a fault that is likely to have another earthquake sometime in the future. Faults are commonly considered active if they have moved one or more time in the last 10,000 years. (USGS, 2012) The largest event within 100

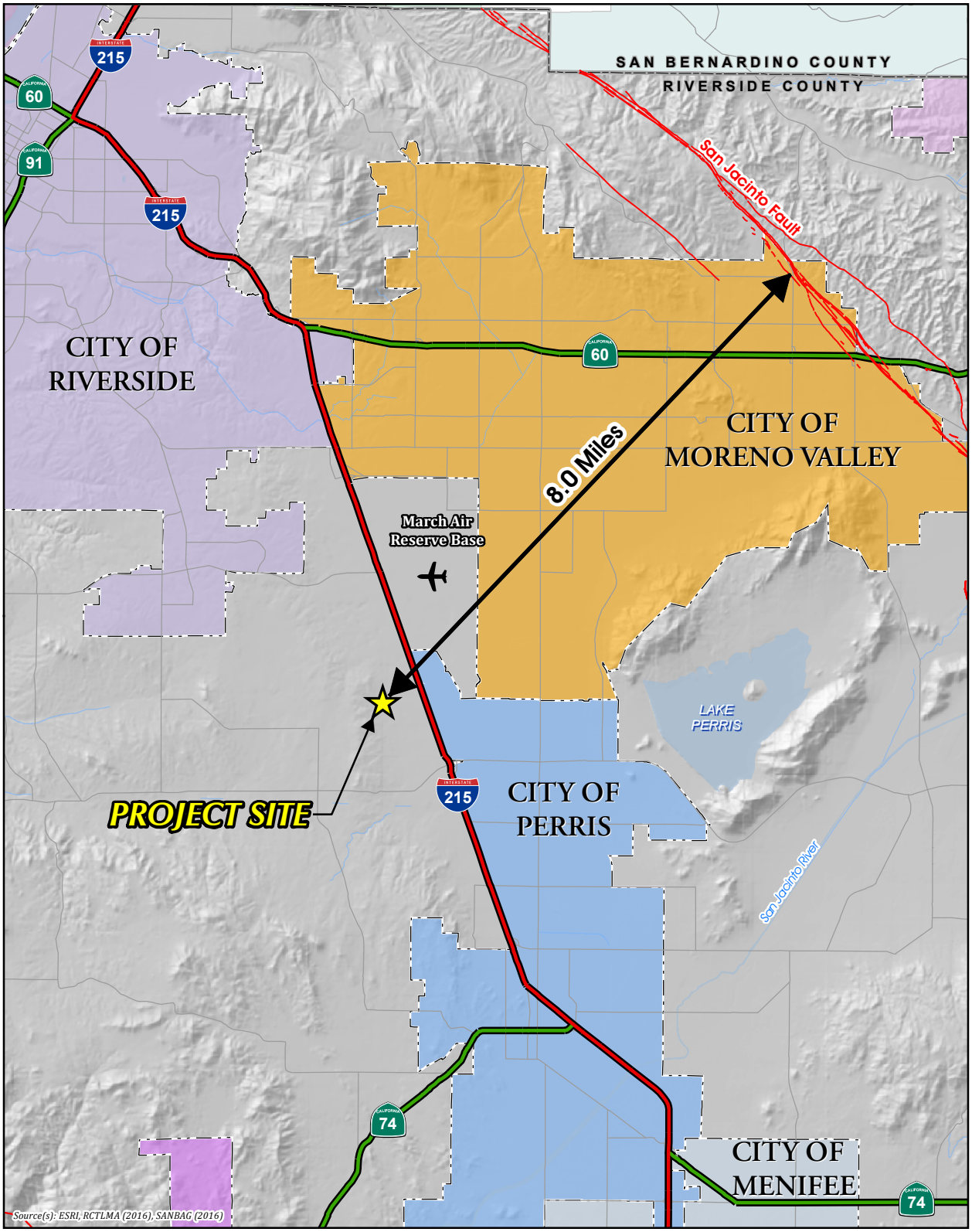


Figure 4.6-1

EARTHQUAKE FAULT ZONES

kilometers (km) (62 miles) of the Project site was a 6.4 magnitude located 7 km (4.3 miles) west-northwest of Newport Beach in Orange County, on March 11, 1993. (SoCalGeo, 2016a, p. 4) (SoCalGeo, 2016b, p. 4) Refer to *Technical Appendix E2* and *Technical Appendix E4* Enclosures Plates E-1 and E-2: Seismic Design Parameters; a table that identifies the known faults, the distance to the Project site, and the maximum earthquake magnitude; and a table that identifies recent significant seismic events within 100 km (62 miles) of the Project site.

Historical aerial photographs (1996, 1978, 1994, 2002, 2005, 2009, and 2012) of the Project site were reviewed by SoCalGeo to characterize any potential hazard such as fault scarps, fault line scarps, landslides, etc. (SoCalGeo, 2016a, p. 4) (SoCalGeo, 2016b, p. 4) Based on SoCalGeo's review of the historical aerial photographs, no evidence of linear features (i.e. fault lines, fault line scarps) indicative of faulting was observed transecting the Project site or the surrounding area. (SoCalGeo, 2016a, p. 4)

Secondary hazards associated with seismic events include surface rupture, ground failure, liquefaction, and landslide and rockfalls, as briefly discussed below. The potential for these secondary hazards to affect the Project site is described below.

❑ Fault Rupture / Ground Motion

Fault rupture can occur along pre-existing, known active fault traces; however, fault rupture also can splay from known active faults or rupture along unidentified fault traces. SoCalGeo determined that the peak ground acceleration (PGA_M) for the Project site is 0.50g (SoCalGeo, 2016a, p. 11) (SoCalGeo, 2016b, p. 10).

Building D Site

The Building D Site is not located within an Alquist-Priolo Earthquake Fault Zone and there are no active or potentially active faults on the Building D Site. The nearest Alquist-Priolo Earthquake Fault Zone is the San Jacinto Fault Zone located approximately 8.0 miles northeast of the Project site. Therefore, the potential for surface rupture is not anticipated to occur. (Matrix, 2014, pp, 10 and 15)

Building E Site

The Building E Site is not located within an Alquist-Priolo Earthquake Fault Zone and there are no active or potentially active faults on the Building E Site (Matrix, 2015, pp. 4 , 8, and 10). The nearest Alquist-Priolo Earthquake Fault Zone is the San Jacinto Fault Zone located approximately 8.0 miles northeast of the Project site. Therefore, the potential for surface rupture is considered unlikely.

❑ Liquefaction

Liquefaction is a phenomenon in which loose, saturated, relatively cohesion-less soil deposits lose shear strength during strong ground motions, which causes the soil to behave as a viscous liquid. Liquefaction is generally limited to the upper 50 feet of subsurface soils. Research and historical data indicate that loose granular soils of Holocene to late Pleistocene age below a near-surface groundwater table are most susceptible to liquefaction, while ground motions do not substantially affect most clayey

soils (Southern California Earthquake Center, 1999, pp. 5-6). Therefore, in order for the potential effects of liquefaction to occur at the ground surface, soils generally must be Holocene to late Pleistocene age, granular, loose to medium dense, relatively saturated near the ground surface, and be subjected to a sufficient magnitude and duration of ground shaking.

Building D Site

According to Riverside County GIS data, a small area in the eastern portion of the Building D Site has a "moderate" susceptibility to liquefaction (RCIT, 2015). However, based on a survey of the Building D Site, including a laboratory analysis of site soils, the property contains cohesive soil and the potential for liquefaction to occur on the property is very low (Matrix, 2014, p. 12). The perched groundwater was considered during the liquefaction assessment. However, due to the dense to very dense alluvium and older alluvium underlain by very dense bedrock, liquefaction is not considered a necessary design consideration for the Building D Site. (SoCalGeo, 2016a, p. 4)

Building E Site

Based on an analysis of soils from the Building E Site, the property contains cohesive soils that are not susceptible to liquefaction (Matrix, 2015, p. 10). Similarly, Riverside County mapping data does not identify the Building E Site within an area susceptible to liquefaction (RCIT, 2015). The perched groundwater was considered during the liquefaction assessment. However, due to the dense to very dense alluvium and older alluvium underlain by very dense bedrock, liquefaction is not considered a necessary design consideration for the Building E Site. (SoCalGeo, 2016a, p. 4)

❑ Landslides and Rockfalls

The Building D Site and the Building E Site do not contain any steep natural slopes or manufactured slopes. The surface rocks on the Building D Site and the Building E Site are embedded in the ground and do not present landslide or rockfall hazards (Matrix, 2014, p. 15). (Matrix, 2015, p. 13).

F. Slope and Soil Instability Hazards

❑ Soil Erosion

Erosion is the process by which the upper layers of the surface (such as soils) are worn and removed by the movement of water or wind. Soils with characteristics such as low permeability and/or low cohesive strength are more susceptible to erosion than those soils having higher permeability and cohesive strength. For water erosion, the slope gradient on which a given soil is located contributes to the soil's resistance to erosive forces because water is able to flow faster down steeper gradients. Wind erosion can damage land and natural vegetation by removing soil from one place and depositing it in another. It mostly affects dry, sandy soils in flat, bare areas, but wind erosion may occur wherever soil is loose, dry, and finely granulated.

According to the *Riverside County 2015 General Plan Update Draft EIR*, soils on the Building D Site and the Building E Site are "moderately susceptible" to erosion (Riverside County, 2015, Figure 4.12-6).

❑ Shrinkage/Subsidence Potential

Subsidence is a gradual settling or sudden sinking of the ground surface (i.e., loss of elevation). The principal causes of subsidence are aquifer-system compaction, drainage of organic soils, underground mining, and natural compaction. Shrinkage is the reduction in volume in soil as the water content of the soil drops (i.e., loss of volume).

Based on the conditions encountered at subsurface testing locations at the Building D Site and the Building E Site, removal and re-compaction of the soils on the property would result in shrinkage ranging from 0 to 15 percent. Minor ground subsidence is expected to occur in the soils below the zone of removal, due to settlement during construction activities on the property (Matrix, 2014, p. 18). (Matrix, 2015, p. 16). Therefore, the soils on the Building D Site and Building E Site have the potential for shrinkage and subsidence.

❑ Soil Expansion Potential

Expansive soils are soils that exhibit cyclic shrink and swell patterns in response to variations in moisture content. Laboratory testing indicated that the soils on the Building D Site and the Building E Site have a very low expansion potential (Matrix, 2014, p. 15) (Matrix, 2015, p. 13).

❑ Landslide Potential

The Project site and immediately surrounding properties are either flat or gently sloping and contain no steep natural or manufactured slopes; thus, there is no potential for landslides to occur on or immediately adjacent to the site.

G. Applicable Environmental Regulations

❑ Federal Water Pollution Control Act (Clean Water Act)

The Federal Water Pollution Control Act (also known as the Clean Water Act (CWA)) is the principal federal statute that addresses water resources. The provision of the CWA applicable to geology and soils is CWA Section 402, which applies to all construction sites of over one acre in size and, in part, serves to control the potential impacts of erosion. CWA Section 402 authorizes the National Pollutant Discharge Elimination System (NPDES) permit program that covers point sources of pollution discharging to a water body. The NPDES program requires operators of construction sites one acre or larger to prepare a Storm Water Pollution Prevention Plan (SWPPP) and obtain authorization to discharge storm water under an NPDES construction storm water permit.

❑ State Water Resources Control Board (SWRCB)

The State Water Resources Control Board adopts statewide water quality control plans and its nine Resource Water Quality Control Boards (RWQCBs) are required to develop and adopt regional water quality control plans that conform to state water quality policy. The Santa Ana RWQCB's Santa Ana River Basin Water Quality Control Plan is applicable to the Project site; it designates beneficial uses of water bodies to be protected and establishes water quality objectives.

❑ South Coast Air Quality Management District, Rule 403

The South Coast Air Quality Management District (SCAQMD) is responsible for enforcing air pollution control measures in the South Coast Air Basin, within which the Project site is located. Rule 403 addresses blowing dust from construction sites and is applicable to the Project due to the potential for wind erosion during Project grading and construction activities.

❑ Alquist-Priolo Earthquake Fault Zoning Act (CA Pub. Res. Code § 2621 et Seq.)

The Alquist-Priolo Special Studies Zone Act was signed into law in 1972 and renamed the Alquist-Priolo Earthquake Fault Zoning Act in 1994. The primary purpose of the Alquist-Priolo Act is to mitigate the hazard of fault rupture by prohibiting the location of structures for human occupancy across the trace of an active fault.

Neither the Building D Site nor the Building E Site is located in or near a designated Alquist-Priolo Earthquake Fault Zone (Matrix, 2014, p. 10; Matrix, 2015, p. 8).

❑ Seismic Hazards Mapping Act (CA Pub. Res. Code § 2690 et Seq.)

The Seismic Hazards Mapping Act of 1990 is a statewide seismic hazard mapping and technical advisory program in California to assist cities and counties in fulfilling their responsibilities for protecting the public health and safety from the effects of strong ground shaking, liquefaction, landslides, or other ground failure and other seismic hazards caused by earthquakes. The California Geologic Survey (CGS) is the principal State implementing agency that mapped seismic zones requiring the completion of site-specific geotechnical investigations prior to construction of a development project.

❑ California Building Standards Code, Title 24

The California Green Building Standards Code (CCR, Title 24), also known as the CBSC or CalGreen, is the standard from which California buildings derive appropriate building design standards. The International Building Code (IBC) used by the International Conference of Building Officials establishes design and construction standards for buildings and facilities. The CBSC incorporates the IBC as well as other uniform codes into its code standards. All development projects in California are required to comply with the CBSC.

❑ County of Riverside Building Code

The Riverside County Building Codes is adapted from the California Building Standards Code (CCR Title 24). This code establishes site-specific investigation requirements, construction standards, and inspection procedures to ensure that development authorized by the County of Riverside does not pose a threat to the health, safety, or welfare of the public including conditions related to geologic soil hazards. The CBSC contains minimum baseline standards to guard against unsafe development. The County also adopts, in some cases, local amendments for stricter standards than the CBSC (fire, building, plumbing, electrical, etc.). The Riverside County Department of Building and Safety provides technical expertise in reviewing and enforcing these codes (Riverside County, 2015, p. 4.12-25).

4.6.2 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to geology and soils if the Project or any Project-related component would:

Alquist-Priolo Earthquake Fault Zone or County Fault Zone

a) *Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death; or*

b) *Be subject to rupture of a known earthquake fault, as delineated by the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on substantial evidence of a known fault.*

Liquefaction Zone Potential

a) *Be subject to seismic-related ground failure, including liquefaction.*

Ground-Shaking Zone

a) *Be subject to strong seismic ground shaking.*

Landslide Risk

a) *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- or off-site landslide, lateral spreading, collapse, or rockfall hazards.*

Ground Subsidence

a) *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 ground subsidence.*

Other Geologic Hazards

a) *Be subject to geologic hazards, such as seiche, mudflow, or volcanic hazard.*

Slopes

a) *Change topography or ground surface relief features;*

b) *Create cut or fill slopes greater than 2:1 or higher than 10 feet; or*

c) Result in grading that affects or negates subsurface sewage disposal systems.

Soils

a) Result in substantial soil erosion or loss of topsoil;

b) Be located on expansive soil, as defined in Section 1802.3.2 of the California Building Code (2007), creating substantial risks to life or property; or

c) Have soils incapable of adequately supporting use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

Erosion

a) Change deposition, siltation, or erosion that may modify the channel of a river or stream or the bed of a lake; or

b) Result in any increase in water erosion either on or off site.

Wind Erosion and Blowsand

a) Be impacted by or result in an increase in wind erosion and blowsand, either on or off site.

4.6.3 IMPACT ANALYSIS

Alquist-Priolo Earthquake Fault Zone or County Fault Zone

Threshold a) Would the Project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death?

Threshold b) Would the Project be subject to rupture of a known earthquake fault, as delineated by the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on substantial evidence of a known fault?

A. Alquist-Priolo or County Fault Zone

Neither the Building D Site nor the Building E Site is located within an Alquist-Priolo Earthquake Fault Zone (Matrix, 2014, p. 10; Matrix, 2015, p. 8). Additionally, neither the Building D Site nor the Building E Site is located within a Riverside County-designated fault zone (RCIT, 2015). The nearest fault zone is the San Jacinto Fault Zone located approximately 8.0 miles northeast of the Project site. Therefore, there is no potential for implementation of the Project to expose people or structures to substantial adverse effects, including the risk of loss, injury, or death, related to hazards from an Alquist-Priolo Earthquake Fault Zone or County Fault Zone. No impact would occur.

B. Fault Rupture

Building D Site

There are no known active or potentially active faults on the Building D Site; therefore, there is no potential for ground rupture related to a known fault. No impact would occur.

Building E Site

There are no known active or potentially active faults on the Building E Site; therefore, there is no potential for ground rupture related to a known fault. No impact would occur.

Liquefaction Zone Potential
Threshold a) Would the Project be subject to seismic-related ground failure, including liquefaction?

According to available mapping data and soil conditions encountered by Matrix during testing on the Building D Site and Building E Site, because the soils contained on the Building D Site and the Building E Site are dense and cohesive they are not subject to a significant risk associated with seismic-related ground failure, including liquefaction (Matrix, 2014, p. 12; Matrix, 2015, p. 10).

The CBSC and County of Riverside Building Code provide standards that must be met to safeguard life or limb, health, property, and public welfare by regulating and controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of all buildings and structures, and have been specifically tailored for California earthquake conditions. In addition, the CBSC (Chapter 18) and the County of Riverside require development projects to prepare geologic engineering reports to identify site-specific geologic and seismic conditions and provide site-specific recommendations to preclude adverse effects involving unstable soils and strong seismic ground-shaking, including, but not limited to, recommendations related to ground stabilization, selection of appropriate foundation type and depths, and selection of appropriate structural systems. The Project Applicant has prepared such reports, which are included as *Technical Appendices E1through E4* to this EIR.

Building D and Building E are required to be designed and constructed in accordance with the latest applicable seismic safety guidelines, including the standard requirements of the CBSC (Chapter 18) and County of Riverside Building Code. The County of Riverside would also impose the site-specific grading and construction recommendations contained within the geotechnical reports mentioned above (*Technical Appendices E1 and E2*) as conditions of Project approval to further reduce the risk of seismic-related ground failure due to liquefaction. As such, implementation of the Project would result in less-than-significant impacts associated with seismic-related ground failure and/or liquefaction hazards.

Ground-Shaking Zone
Threshold a) Would the Project be subject to strong seismic ground shaking?

The Building D Site and the Building E Site are located in a seismically active area of southern California that is expected to experience moderate to severe ground shaking during future seismic events. This risk is not substantially different than the risk experienced by other properties in the southern California area. As noted above, as a mandatory condition of Project approval, Building D and Building E would be required to be constructed in accordance with the CBSC, also known as California Code of Regulations (CCR), Title 24 (Part 2), and the County of Riverside Building Code.

Furthermore, the Building D Site and the Building E Site would be required to comply with the site-specific grading and construction recommendations contained within the Project's geotechnical reports (*Technical Appendices E1 through E4*, respectively), which the County would impose as conditions of Project approval, to further reduce the risk of adverse effects related to strong seismic ground shaking. With the Project's mandatory compliance with these standard and site-specific design and construction measures, potential impacts related to seismic ground shaking would be less than significant.

Landslide Risk

Threshold a) 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- or off-site landslide, lateral spreading, collapse, or rockfall hazards?

Ground Subsidence

Threshold a) 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 ground subsidence?

Neither the Building D Site nor the Building E Site contain substantial natural or man-made slopes under existing conditions. Construction of Building D and Building E would result in the creation of slopes around the perimeter of both building sites and within the proposed water quality detention basins. In addition, the Building D Site would contain an approximately 16-foot-high slope along the western portion of the site that abuts Ellsworth Street. The Building E Site would contain an approximately 14-foot-high slope along the western site boundary. The proposed manufactured slopes would be engineered for long-term stability and would be required to be constructed in accordance with the site-specific recommendations contained within the Building D and Building E geotechnical reports (*Technical Appendices E1* through *E4*). Blasting associated with Project construction is expected to occur in hard rock areas of the southern portion of the Building D Site boundaries, in proximity to existing residential homes and business enterprises located south of the Project site. Blasting proposed on the Project site would utilize small, highly controlled explosive charges that are covered with overburden to minimize vibration. Potential effects from blasting would be limited solely to the immediate area where rock breaking/blasting activities are occurring and would not extend beyond the boundaries of the Project site (i.e., off-site). In addition, a blasting vibration monitoring and abatement plan for the Project is required to be approved by Riverside County prior to the commencement of blasting activities which would further limit the groundborne vibration levels. Accordingly, the proposed construction activities on the Building D Site and the Building E Site would result in less-than-significant impacts associated with on- and/or off-site landslide hazards.

Lateral spreading is primarily associated with liquefaction hazards. As noted above under the Impact Analysis for Liquefaction Zone Potential, Threshold (a), the potential for liquefaction at the Building D Site and the Building E Site is considered low based on a site-specific analysis. The site-specific analysis also indicated that "lateral spreading does not appear to present a causative hazard to the site

and the effects of lateral spreading on the site are considered to be nil," (Matrix, 2014, p. 12; Matrix, 2015, p. 10). Accordingly, impacts associated with lateral spreading would not occur.

As previously discussed, the Building D Site and the Building E Site and surrounding area are either flat or slope gently from west to east; and they do not contain any substantial cliffs or slopes that would cause rockfall hazards. Accordingly, there is no potential for the Building D Site or the Building E Site to be subject to rockfall hazards and associated impacts would not occur.

In conclusion, neither Building D nor Building E would be located on geologic units or soils that are unstable, or that would become unstable as a result of implementation of the Project, and potentially result in on- or off-site landslide, lateral spreading, collapse, or rockfall hazards. Impacts would be less than significant.

Based on the conditions encountered at subsurface testing locations at the Building D Site and the Building E Site, removal and re-compaction of the near surface native soils would result in shrinkage of zero to 15-percent (Matrix, 2014, p. 18; Matrix, 2015, p. 16). The Riverside County GIS mapping system indicates that neither the Building D Site nor the Building E Site is located within an area that is susceptible to subsidence or collapse (collapse occurs as a result of sudden subsidence) (RCIT, 2015). Furthermore, the Project's geotechnical reports contain recommendations for site preparation that would minimize the risks associated with subsidence, which would be imposed as standard conditions of approval for each building (Matrix, 2014, pp. 16-30; Matrix, 2015, pp. 14-27). In addition, Building D and Building E would comply with all State and County Regulations, including the CBSC and all applicable County policies. As such, implementation of the Project would result in less-than-significant impacts associated with soil shrinkage/subsidence and collapse.

Other Geologic Hazards

Threshold a) Would the Project be subject to geologic hazards, such as seiche, mudflow, or volcanic hazard?

No steep hillsides subject to mudflow and no volcanoes are located on or near the Building D Site or the Building E Site (Google Earth, 2015; Riverside County, 2015, Figure S-5). The nearest large body of surface water is the Perris Reservoir, located approximately 4.1 miles east of the Project site. However, neither the Building D Site nor the Building E Site is located within the dam inundation zone for the Perris Reservoir, indicating that the Project site is not be subject to any seiche hazards associated with the Perris Reservoir (Riverside County, 2014a, Figure S-10). The Project site's slopes would be planted with stabilizing vegetation, which would preclude the potential for mudflow. Therefore, there is no potential for the Project to be subject to hazards associated with seiches, mudflows, and/or volcanic hazards. No impact would occur.

Slopes	
Threshold a)	***Would the Project change topography or ground surface relief features?***
Threshold b)	***Would the Project create cut or fill slopes greater than 2:1 or higher than 10 feet?***

Under existing conditions, the Project site consist of gently sloping topography, with elevations ranging from 1,556 feet AMSL at the northeastern portion of the Building D Site to 1,665 feet AMSL at the western boundary of the Building E Site. To accommodate the proposed Project, the topography would be altered and manufactured slopes would be created, as described below.

Building D Site

Grading would occur over the entire Building D Site; no portion of the site would be left undisturbed. When grading is complete, the building pad would sit approximately 17 feet below the ground elevation of Ellsworth Street and abutting property to the south, and the property would have a slight west-to-east-slope. Refer to Figure 3-6, *Conceptual Grading Plan – Building D Site*. After grading, the highest point of the property would be its southwest corner (approximately 1,602 AMSL) and the lowest point of the property would be its northeast corner (approximately 1,560 AMSL). To accommodate the proposed grading concept, manufactured slopes measuring up to 17 feet in height with a maximum incline of 47.8% would be required, as would retaining walls ranging in height from four to 12 feet tall along the southern and western portions of the property. The proposed grading plan and the creation of manufactured slopes on the Building D Site would result in less-than-significant impacts to geology and soils because the slopes would be stable and not lead to any geologic or soil hazard. As a standard condition of Project approval, the Project would be required to comply with the site-specific recommendations contained in the geotechnical reports prepared for the Building D Site, including recommendations related to site preparation, soil compaction, and manufactured slope design that would minimize potential hazards associated with manufactured slope failure (Matrix, 2014, pp. 16-30). Although manufactured slopes would occur over 10 feet in height, the slopes would be landscaped and comply with the recommendations of the Building D Site's geotechnical reports (refer to *Technical Appendices E1and E2*). Deep-rooted, low water use plant materials are proposed on the slopes to aid in stability, as shown on the Building D Site's Conceptual Landscaping Plan in Section 3.0, *Project Description*, of this EIR. For these reasons, the Project as proposed on the Building D Site would not create a substantial adverse effect associated with changes in topography. Impacts would be less than significant.

Building E Site

Grading would occur over the entire 21.5-acre Building E Site. When grading is complete, the building pad would range from being approximately 24 feet above to approximately 14 feet below the ground elevation of abutting property, and the Building E property would have a slight west-to-east-slope. Refer to Figure 3-13, *Conceptual Grading Plan – Building E Site*. After grading, the highest point of the property would be its southwest corner (approximately 1,627 AMSL) and the lowest point of the

property would be at the bottom of the water quality basin (approximately 1,588 AMSL). To accommodate the proposed grading concept, manufactured slopes measuring up to 14 feet in height with a maximum incline of 2:1 (vertical:horizontal) would be required, as would retaining walls ranging in height from one to seven feet tall along the southwest, east, and northeast portions of the property. Also, a mechanically stabilized earth wall up to 18 feet in height is proposed along the west and south sides of the proposed water quality basin. The proposed grading plan and the creation of manufactured slopes on the Building E Site would result in less-than-significant impacts to geology and soils because the slopes would be stable and not lead to any geologic or soil hazard. As a standard condition of Project approval, the Project would be required to comply with the site-specific recommendations contained in the geotechnical reports for the Building E Site, including recommendations related to site preparation, soil compaction, and manufactured slope design that would minimize potential hazards associated with manufactured slope failure (Matrix, 2015, pp. 14-27) (SoCalGeo, 2017a). Although manufactured slopes would occur over 10 feet in height, the slopes would be landscaped and comply with the recommendations of the Building E Site's geotechnical reports (*Technical Appendices E3 and E4).* Deep-rooted, low water use plant materials are proposed on the slopes to aid in stability, as shown on the Building E Site's Conceptual Landscaping Plan in Section 3.0, *Project Description*, of this EIR. For these reasons, the Project would not create a substantial adverse effect associated with changes in topography. Impacts would be less than significant.

Slopes
Threshold c) Would the Project result in grading that affects or negates subsurface sewage disposal systems?

Building D Site

Under existing conditions, the Building D Site contains a subsurface sewage disposal system that is associated with one mobile home. The Project proposes to remove the subsurface sewage disposal system prior to grading activities on the Building D Site in accordance with all applicable County of Riverside rules and regulations; therefore, because the subsurface sewage disposal system present on the Building D Site under existing conditions would be removed prior to grading, the Project would not result in grading that affects or negates subsurface sewage disposal systems. In addition, the Building D Site does not serve as a leach field for any off-site properties; therefore, the Project also would not affect or negate any off-site subsurface sewage disposal systems. Accordingly, impacts would be less than significant.

Building E Site

The Building E Site does not contain any subsurface sewage disposal systems under existing conditions. The Building E Site does not serve as a leach field for any off-site properties and has no potential to affect or negate subsurface sewage disposal systems. No impact would occur.

Soils
Threshold a) Would the Project result in substantial soil erosion or loss of topsoil?

Implementation of the Project has the potential to result in soil erosion. The analysis below summarizes the likelihood of the Project to result in substantial soil erosion during temporary construction activities and/or long-term operation.

1. Impact Analysis for Temporary Construction-Related Activities

Proposed demolition, grading, and construction activities on the Building D Site and the Building E Site would expose underlying soils and disturb surficial soils on the respective properties. Exposed soils would be subject to erosion during rainfall events or high winds due to the removal of stabilizing vegetation and exposure of these erodible materials to wind and water.

Pursuant to the requirements of the State Water Resources Control Board, the Project Applicant is required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for construction activities, including proposed grading. The NPDES permit is required for all projects that include construction activities, such as clearing, grading, and/or excavation that disturb at least one (1) acre of total land area. The County's Municipal Separate Storm Sewer System (MS4) NPDES Permit requires the Project Applicant to prepare and submit to the County for approval a Project-specific Storm Water Pollution Prevention Plan (SWPPP). The SWPPP would identify a combination of erosion control and sediment control measures (i.e., Best Management Practices) to reduce or eliminate sediment discharge to surface water from storm water and non-storm water discharges during construction. In addition, proposed construction activities would be required to comply with SCAQMD Rule 403, which would reduce the amount of particulate matter in the air and minimize the potential for wind erosion. Rule 403 requires that certain construction practices be followed that limit dust and dirt from leaving the construction site. For example, no dust is allowed to be visible in the air beyond the property line of the construction site, and no dirt is allowed to be tracked out of the site by more than 25 feet. With mandatory compliance to the requirements noted in the Project's SWPPP, as well as mandatory compliance to applicable regulatory requirements including but not limited to SCAQMD Rule 403, the potential for water and/or wind erosion impacts during Project construction would be less than significant and mitigation is not required.

2. Impact Analysis for Long-Term Operational Activities

Following construction, wind and water erosion on the Building D Site and the Building E Site would be minimal, as the areas disturbed during construction would be landscaped or covered with impervious surfaces and drainage would be controlled through a storm drain system. All of the Project site's storm water would flow into a storm water drainage system managed by the Riverside County Flood Control and Water Conservation District (RCFCWCD) with one exception. As an interim measure until lines associated with the RCFCWCD's Perris Valley Master Drainage Plan (MDP) are installed to the south and east of the Project site (namely, Lateral 3), upstream flows from off-site properties to the south and southwest would be captured by a storm drain line installed along the

southern portion of the Building D Site which would collect upstream flows and discharge at an outlet with energy dissipater near the southeast corner of the Building D Site. Energy dissipaters help reduce the velocity of storm water flow to ensure impacts to downstream properties or facilities remain less than significant. The installation of an energy dissipater would preclude the potential for substantial soil erosion (SoCalGeo, 2016a, p. 4).

Furthermore, the County's MS4 NPDES Permit requires the Project Applicant to prepare and submit to the County for approval a Water Quality Management Plan (WQMP, Ordinance 754). The WQMP is required to identify an effective combination of erosion control and sediment control measures (i.e., Best Management Practices) to reduce or eliminate sediment discharge to surface water from storm water and non-storm water discharges. The WQMPs for the Building D Site and the Building E Site are required to incorporate Best Management Practices, including water quality/detention basins and vegetative swales, which are effective at removing silt and sediment from storm water runoff. WQMPs also require post-construction maintenance and operational measures to ensure on-going erosion protection. Compliance with the WQMPs for the Building D Site and the Building E Site would be required as conditions of Project approval as would the long-term maintenance of water quality features. Therefore, implementation of the proposed Project would not result in substantial erosion or loss of top soil during long-term operation. The Project's impact would be less than significant for both Building D and Building E.

Soils
Threshold b) Would the Project be located on expansive soil, as defined in Section 1802.3.2 of the California Building Code (2007), creating substantial risks to life or property?

Laboratory tests determined that the near-surface soils on both the Building D Site and the Building E Site have a very low expansion potential (Matrix, 2014, p. 15; Matrix, 2015, p. 13). Accordingly, the Project would not create substantial risks to life or property from exposure to expansive soils. Impacts would be less than significant.

Soils
Threshold c) Would the Project have soils incapable of adequately supporting use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

The Project does not propose the use of septic tanks or alternative wastewater disposal systems for either Building D or Building E. Accordingly, no impact associated with septic tanks or alternative waste water systems would occur with implementation of the Project.

Erosion

Threshold a) Would the Project change deposition, siltation, or erosion that may modify the channel of a river or stream or the bed of a lake?

Threshold b) Would the Project result in any increase in water erosion either on or off site?

Neither the Building D Site nor the Building E Site contain any active streams or rivers and no streams or rivers are located in close proximity to the properties. Therefore, implementation of the Project has no potential to modify the channel of a river or stream or the bed of a lake.

As discussed in the impact analysis for Soils Threshold (a), the Project has the potential to result in soil erosion. However, during construction the Project would be required to obtain a NPDES permit as well as prepare and comply with a SWPPP. Compliance with these requirements would ensure that construction of Building D and Building E would not result in substantial erosion. Following construction, the majority of the Building D Site and the Building E Site would be landscaped or developed with impervious surfaces. Development of both sites would require compliance with WQMPs to control erosion and sedimentation. Compliance with the WQMPs would be required as conditions of building permit approval and long-term maintenance of on-site water quality features would be required to ensure their long-term effectiveness. Therefore, storm water runoff flows leaving the Building D Site and the Building E Site would not carry substantial amounts of sediment that could modify the channel of a river or stream or the bed of a lake. Construction and operation of Building D and Building E would not result in any increase in water erosion on site or off site. Impacts would be less than significant.

Wind Erosion and Blowsand

Threshold a) Would the Project be impacted by or result in an increase in wind erosion and blowsand, either on or off site?

According to the Riverside County General Plan, the Building D Site and the Building E Site are located in an area with a "Moderate" susceptibility to wind erosion (Riverside County, 2008, Figure S-8). During construction, existing vegetative cover would be removed from a majority of the subject property, soils would be exposed, and the potential for wind-induced erosion and blowsand would increase as compared to existing conditions. However, as previously discussed, the Project would be required to comply with SCAQMD Rule 403 that requires implementation of best available dust control measures during construction activities that generate fugitive dust, such as earth moving, grading, and construction equipment travel on unpaved roads. Following development of the Project, soils on the Building D Site and the Building E Site would be covered with impervious surfaces and landscaping and no longer exposed to wind; thus, wind erosion and the loss of topsoil under long-term conditions would be substantially reduced as compared to existing conditions. With mandatory compliance to applicable regulatory requirements, the potential for the Project to result in an increase in wind erosion and blowsand, either on or off site, would be less than significant and mitigation is not required.

4.6.4 CUMULATIVE IMPACT ANALYSIS

The cumulative study area for seismic effects and erosion and sedimentation is the southern California region, as seismic activity is detectible at considerable distances up to several hundred miles. Similarly, erosion and sedimentation effects can extend considerable distances in surface water bodies reaching discharge points such as the Pacific Ocean. As such, a summary of projections approach was used in this analysis of cumulative effects for seismic hazards and erosion. Other potential geologic and soils effects are inherently restricted to the areas proposed for on-site development and as such, there is no potential for the Project to contribute to cumulative impacts that require study. Regarding seismic effects, the proposed Project has no potential to cause a seismic event or affect the magnitude of a seismic event. As such, the project has no potential to contribute to a cumulatively significant seismic impact.

As discussed in the impact analysis for Soil Threshold (a), Erosion Thresholds (a) and (b), and Wind Erosion Threshold (a), measures would be incorporated into the Project design during construction and long-term operation to ensure that significant erosion impacts do not occur on the Building D Site or the Building E Site or off-site resulting from Project implementation. Other development projects in the southern California region would be required to comply with similar regulatory requirements as the Project as required by State law and RWQCB requirements to preclude substantial adverse erosion impacts, including mandatory compliance with NPDES requirements and the resulting SWPPPs and WQMPs. All development projects in the vicinity of the Project also would be required to comply with SCAQMD Rule 403, which would preclude wind-related erosion hazards during construction. In addition, erosion on the Project site would be further controlled by the creation of manufactured slopes planted with stabilizing vegetation that would slope inward toward the Building D Site and the Building E Site. Therefore, because the Project would not result in significant erosion impacts on either the Building D Site or the Building E Site, and because other projects within the cumulative study area would be subject to similar requirements to control erosion hazards during construction and long-term operation, cumulative impacts associated with wind and water erosion hazards are evaluated as less than significant.

4.6.5 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Alquist-Priolo Earthquake Fault Zone or County Fault Zone

Thresholds (a) and (b) for the Building D and the Building E Site: Less-than-Significant Impact. Development on the Building D Site and the Building E Site would not expose people or structures to substantial adverse seismic risks. The Building D Site and the Building E Site are not located within a mapped Alquist-Priolo Earthquake Fault Zone and there are no known active or potentially active faults on the Project site or trending toward the Project site; therefore, the Project site is not subject to risk of fault rupture. Mandatory compliance with local and state regulatory requirements related to building construction would ensure that Building D and Building E are developed as required to attenuate the seismic risk to people or structures to less-than-significant levels.

Liquefaction Zone Potential

Threshold (a) for the Building D Site and Building E Site: Less-than-Significant Impact. The Building D Site and the Building E Site have a low potential for liquefaction and seismic-related ground failure. Accordingly, liquefaction impacts would be less than significant.

Ground-Shaking Zone

Threshold (a) for the Building D Site and the Building E Site: Less-than-Significant Impact. As with all properties within the southern California region, the Project site is subject to seismic ground shaking associated with earthquakes; however, mandatory compliance with local and state ordinances and building codes including but not limited to the CBSC (Chapter 18) and County of Riverside Building Code would ensure that the proposed structures are developed as required to preclude adverse effects involving strong seismic ground-shaking. Impacts would be less than significant.

Landslide Risk

Threshold (a) for the Building D Site and Building E Site: Less-than-Significant Impact. There is no potential for Building D or Building E to cause on- or off-site landslides or lateral spreading. Potential hazards associated with soils on the Project site that have the potential for lateral spreading and collapse would be precluded through use of non-explosive rock breaking/blasting techniques during Project construction, mandatory adherence to recommendations given in the Building D Site and the Building E Site geotechnical reports, and mandatory compliance with applicable regulations. The Project would create stable manufactured slopes that would not be subject to rockfall hazards. The potential to result in on- or off-site landslide, lateral spreading, collapse, or rockfall hazards would be less than significant.

Ground Subsidence

Threshold (a) for the Building D Site and the Building E Site: Less-than-Significant Impact. Ground subsidence has the potential to occur on the Building D and Building E sites. However, mandatory adherence to recommendations given in the Building D Site and the Building E Site geotechnical reports and mandatory compliance with applicable regulations would ensure proper grading techniques such that impacts related to ground subsidence would be less than significant.

Other Geologic Hazards

Threshold (a) for the Building D Site and the Building E Site: No Impact. The Project site has no potential to be subjected to geologic hazards such as seiche, mudflow, or volcanic hazards.

Slopes

Threshold (a) for the Building D Site and the Building E Site: Less-than-Significant Impact. Development of the Building D Site and the Building E Site would change topography and ground surface relief features as compared to existing conditions. However, as a standard condition of Project approval, the Project would be required to comply with the site-specific recommendations contained

in the geotechnical report for the Building D Site and the Building E Site, including recommendations related to site preparation, soil compaction, and manufactured slope design that would minimize potential hazards associated with manufactured slope failure. Impacts would be less than significant.

Threshold (b) for the Building D Site and the Building E Site: Less-than-Significant Impact. Building D and Building E would create cut or fill slopes higher than 10 feet and greater than 2:1. Both buildings, as part of the conditions of approval, would be required to comply with the recommendations in the geotechnical reports to ensure the stability of these slopes, as well as all other applicable regulations. Deep-rooted, low water use, plant material is proposed on the slopes to further aid in stability. Compliance with the recommendations and applicable regulations would reduce impacts associated with slope construction to less than significant.

Threshold (c) for the Building D Site: Less-than-Significant Impact. The existing septic system associated with the existing mobile home would be removed in accordance with all applicable rules and regulations. With mandatory compliance with all applicable County rules and regulations, the Project would not result in grading that affects or negates subsurface sewage disposal systems. Impacts would be less than significant.

Threshold (c) for the Building E Site: No Impact. The Building E Site contains no subsurface sewage systems. As such, development of the Building E Site would not affect or negate subsurface sewage disposal systems. No impact would occur.

Soils

Threshold (a) for the Building D Site and Building E Site: Less-than-Significant Impact. The Project would not result in substantial soil erosion or the loss of topsoil. The Project Applicant is required to obtain a National Pollutant Discharge Elimination System (NPDES) permit for construction activities as well as adhere to SCAQMD Rule 403 during Project construction. With mandatory compliance to these regulatory requirements, the potential for soil erosion impacts during construction would be less than significant. Following construction, soil erosion on the Project site would be minimized, as the areas disturbed during construction would be landscaped or covered with impervious surfaces and drainage would be controlled through a storm drain system. Furthermore, Building D and Building E are required by law to implement a WQMP during operation, which would preclude substantial erosion impacts in the long-term.

Threshold (b) for the Building D Site and Building E Site: Less-than-Significant Impact. Soils on the Project site have a very low expansion potential. Accordingly, soil expansion impacts would be less than significant.

Threshold (c) for the Building D Site and Building E Site: No Impact. The Project would not install septic tanks or alternative wastewater disposal systems. Accordingly, no impact would occur associated with soil compatibility for wastewater disposal systems.

Erosion

Threshold (a) for the Building D Site and Building E Site: No Impact. The Project site does not contain any active streams or rivers, no streams or rivers are located in close proximity to the Project site, and the Project would not discharge water directly to an active stream or river. The Project would be required to prepare and comply with NPDES permits, SWPPPs, and WQMPs, which would treat and filter runoff to reduce erosion. Therefore, no impact to deposition, siltation, or erosion that may modify the channel of a river or stream or the bed of a lake would occur.

Threshold (b) for the Building D Site and Building E Site: Less-than-Significant Impact. Buildout of the Project site would result in an increase in impervious surfaces. Storm water falling on the developed portions of the Project site would be collected and treated on-site before being discharged into the storm drain system to be constructed as part of the Project. An energy dissipater is proposed to be installed at the southeast corner of the Building D Site to reduce off-site erosion potential to less than significant. Storm water runoff with the potential to result in water erosion would thus be reduced by the Project and a less-than-significant impact would occur.

Wind Erosion and Blowsand from Project either on or off-site

Threshold (a) for the Building D Site and Building E Site: Less-than-Significant Impact. The Project site would be exposed to wind erosion during construction, but would be required to implement BMPs as part of the NPDES permit, and would be required to comply with all other applicable regulations related to wind erosion, including Rule 403. Following development of the Project site, soils on the developed portions of the Project site would be covered with impervious surfaces and landscaping and no longer exposed to wind; thus, wind erosion and the loss of topsoil would be substantially reduced as compared to existing conditions. Impacts would be less than significant.

4.6.6 MITIGATION

Impacts would be less than significant. Mitigation is not required.

4.6.7 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Impacts would be less than significant; therefore, mitigation is not required.

4.7 GREENHOUSE GAS EMISSIONS

The analysis in this Subsection is based in part on a greenhouse gas analysis prepared for the Project titled, "Knox Business Park Greenhouse Gas Analysis County of Riverside," prepared by Urban Crossroads, Inc., dated January 28, 2016 and appended to this EIR as *Technical Appendix F*. (Urban Crossroads, Inc., 2016c) Please note that *Technical Appendix F* was prepared prior to the Project Applicant's decision to reduce the size of the Building E Site and the size of its proposed building to their current configurations. To address the change in building size, Urban Crossroads, Inc. prepared a supplemental analysis and reported its findings in a report titled, "Knox Business Park Supplemental Air Quality Impact Analysis, Greenhouse Gas Impact Analysis, & Mobile Source Health Risk Assessment" dated February 9, 2017, and which is appended to the front of *Technical Appendix B1*. Based on the results of Urban Crossroads Supplemental Analysis, no additional impacts would occur as a result of the reduction in the size of Building E. As shown on Table 2, *Project Greenhouse Gas Emissions,* in the Supplemental Analysis (*Technical Appendix B1*), the reduction in the size of Building E would result in fewer greenhouse gas (GHG) emissions than what was previously analyzed and disclosed in *Technical Appendix F*. The reduction in GHG emissions is due primarily to the fact that the smaller building would result in approximately 12% fewer Project-related vehicle trips and consequently fewer mobile source GHG emissions.

All references used in this Subsection are listed in EIR Section 7.0, *References*.

4.7.1 EXISTING CONDITIONS

B. Introduction to Global Climate Change

Global Climate Change (GCC) refers to change in average meteorological conditions on the Earth with respect to temperature, wind patterns, precipitation, and storms. Debate exists within the scientific community regarding the extent to which GCC is occurring naturally or as a result of human activity. Some data suggests that GCC has occurred naturally over the course of thousands or millions of years and that these historical changes to the Earth's climate have occurred naturally without human influence, as in the case of an ice age. However, many scientists believe that the climate shift taking place since the Industrial Revolution (1900s) is occurring at a quicker rate and magnitude than in the past as a result of human activity and industrialization. Some scientists believe evidence suggests that GCC is the result of increased concentrations of greenhouse gases in the earth's atmosphere, including carbon dioxide, methane, nitrous oxide, and fluorinated gases. Many scientists believe that this increased rate of climate change is the result of greenhouse gases resulting from human activity and industrialization over the past 200 years. (Urban Crossroads, Inc., 2016c, p. 6)

Global temperatures are regulated by naturally occurring atmospheric gases such as water vapor, carbon dioxide (CO_2), nitrous oxide (N_2O), methane (CH_4), hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. These particular gases are important due to their residence time (duration they stay) in the atmosphere, which ranges from 10 years to more than 100 years. These gases allow solar radiation into the Earth's atmosphere, but prevent radioactive heat from escaping, thus warming the Earth's atmosphere. Gases that trap heat in the atmosphere are often referred to as greenhouse gases

(GHGs). GHGs are released into the atmosphere by both natural and anthropogenic (human) activity. Without the natural greenhouse gas effect, the Earth's average temperature would be approximately 61° Fahrenheit (F) cooler than current conditions. (Urban Crossroads, Inc., 2016c, pp. 7-8)

It is not possible for an individual project like the proposed Project to generate enough GHG emissions to make a discernible change in global climate. However, the proposed Project may participate in the potential for GCC through its incremental contribution of GHG emissions when considered in combination with other worldwide sources of GHGs. (Urban Crossroads, Inc., 2016c, p. 6)

C. *Greenhouse Gases*

Carbon dioxide (CO_2), methane (CH_4), and Nitrous Oxide (N_2O) emissions are the focus of evaluation in this Subsection because these gases are the primary contributors to GCC from development projects. Although other substances such as fluorinated gases also contribute to GCC, sources of fluorinated gases are not well defined and no accepted emissions factors or methodology exist to accurately calculate these gases. (Urban Crossroads, Inc., 2016c, p. 8)

Greenhouse gases have varying global warming potential (GWP) values; GWP values represent the potential of a gas to trap heat in the atmosphere. CO_2 is used as the reference gas for GWP, and thus has a GWP of 1. The atmospheric lifetime and GWP of selected GHGs are summarized in Table 4.7-1, *Global Warming Potential and Atmospheric Lifetime of Select GHGs*. As shown in Table 4.7-1, GWP ranges from 1 for CO_2 to 22,800 for sulfur hexafluoride (SF_6). (Urban Crossroads, Inc., 2016c, p. 8)

Table 4.7-1 Global Warming Potential and Atmospheric Lifetime of Select GHGs

Gas	Atmospheric Lifetime (years)	Global Warming Potential (100 year time horizon)
Carbon Dioxide	50-200	1
Methane	12 ± 3	25
Nitrous Oxide	120	298
HFC-23	264	14,800
HFC-134a	14.6	1,430
HFC-152a	1.5	124
Sulfur Hexafluoride (SF6)	3,200	22,800

Source: (Urban Crossroads, Inc., 2016c, Table 2-2)

Provided below is a description of the various gases that contribute to GCC. For more information about these gases and their associated human health effects, refer to Section 2.4, *Greenhouse Gases*, of *Technical Appendix F* and the reference sources cited therein.

1. Water Vapor (H_2O)

Water Vapor (H_2O) is the most abundant, important, and variable GHG in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. The feedback loop in which water is involved is critically important to projecting future climate change. As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to 'hold' more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a "positive feedback loop." The extent to which this positive feedback loop will continue is unknown as there are also dynamics that hold the positive feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it will eventually also condense into clouds, which are more able to reflect incoming solar radiation, thereby allowing less energy to reach the Earth's surface and heat it up. There are no human health effects from water vapor itself; however, when some pollutants come in contact with water vapor, they can dissolve and the water vapor can then act as a pollutant-carrying agent. The main source of water vapor is evaporation from the oceans (approximately 85 percent). Other sources include: evaporation from other water bodies, sublimation (change from solid to gas) from sea ice, and snow, and transpiration from plant leaves. (Urban Crossroads, Inc., 2016c, p. 9)

2. Carbon Dioxide (CO_2)

Carbon dioxide (CO_2) is an odorless and colorless GHG that is emitted from natural and anthropogenic (man-made) sources. Natural sources include: the decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Man-made sources include: the burning of coal, oil, natural gas, and wood. CO_2 is naturally removed from the air by photosynthesis, dissolution into ocean water, transfer to soils and ice caps, and chemical weathering of carbonate rocks. Since the Industrial Revolution began in the mid-1700s, the sort of human activity that increases CO_2 emissions has increased dramatically in scale and distribution. As an example, prior to the Industrial Revolution, CO_2 concentrations were fairly stable at 280 parts per million (ppm). Today, they are around 370 ppm, an increase of more than 30 percent. Exposure to CO_2 in high concentrations can cause human health effects, but outdoor levels are not high enough to adversely affect human health. (Urban Crossroads, Inc., 2016c, p. 10)

3. Methane (CH_4)

Methane (CH_4) is an extremely effective absorber of radiation, though its atmospheric concentration is less than carbon dioxide and its lifetime in the atmosphere is brief (10-12 years), compared to other GHGs. Methane has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas,

and mining coal have added to the atmospheric concentration of methane. Other anthropocentric sources include fossil-fuel combustion and biomass burning. No health effects are known to occur from exposure to methane. (Urban Crossroads, Inc., 2016c, p. 10)

4. Nitrous Oxide (N_20)

Nitrous Oxide (N_2O) concentrations began to rise in the atmosphere at the beginning of the industrial revolution. In 1998, the global concentration was 314 parts per billion (ppb). Nitrous oxide is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. N_2O is used as an aerosol spray propellant, (e.g., in whipped cream bottles), in potato chip bags to keep chips fresh, and in rocket engines and in race cars. N_2O can be transported into the stratosphere, be deposited on the Earth's surface, and be converted to other compounds by chemical reaction. Also known as laughing gas, N_2O is a colorless GHG that can cause dizziness, euphoria, and sometimes slight hallucinations. In small doses, it is considered harmless. However, in some cases, heavy and extended use can cause brain damage. (Urban Crossroads, Inc., 2016c, p. 10)

5. Chlorofluorocarbons (CFCs)

Chlorofluorocarbons (CFCs) are gases formed synthetically by replacing all hydrogen atoms in CH_4 or ethane (C_2H_6) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble and chemically unreactive in the troposphere (the level of air at the Earth's surface). CFCs were first synthesized in 1928 and have no natural source. CFCs were used for refrigerants, aerosol propellants and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and was extremely successful, so much so that levels of the major CFCs are now remaining steady or declining. However, due to their long atmospheric lifetime, some of the CFCs will remain in the atmosphere for over 100 years. (Urban Crossroads, Inc., 2016c, pp. 10-11)

6. Hydrofluorocarbons (HFCs)

Hydrofluorocarbons (HFCs) are synthetic, man-made chemicals that are used as a substitute for CFCs. Out of all the GHGs, they are one of three groups with the highest global warming potential. The HFCs with the largest measured atmospheric abundances are (in order largest to smallest), HFC-23 (CHF_3), HFC-134a (CF_3CH_2F), and HFC-152a (CH_3CHF_2). Prior to 1990, the only significant emissions were HFC-23 emissions. HFC-134a emissions are increasing due to its use as a refrigerant. The United States Environmental Protection Agency (EPA) estimates that concentrations of HFC-23 and HFC-134a are now about 10 parts per trillion (ppt) each; and that concentrations of HFC-152a are about 1 ppt. No human health effects are known to result from exposure to HFCs, which are manmade and used for applications such as automobile air conditioners and refrigerants. (Urban Crossroads, Inc., 2016c, p. 11)

7. Perfluorocarbons (PFCs)

Perfluorocarbons (PFCs) are primarily produced for aluminum production and semiconductor manufacture. PFCs have stable molecular structures and do not break down through chemical processes in the lower atmosphere. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF_4) and hexafluoroethane (C_2F_6). The EPA estimates that concentrations of CF_4 in the atmosphere are over 70 ppt. No human health effects are known to result from exposure to PFCs. (Urban Crossroads, Inc., 2016c, p. 11)

8. Sulfur Hexafluoride (SF_6)

Sulfur Hexafluoride (SF_6) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It also has the highest GWP of any gas evaluated (22,800). The EPA indicates that concentrations in the 1990's were about 4 ppt. In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing. Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection. (Urban Crossroads, Inc., 2016c, p. 11)

D. Greenhouse Gas Emissions Inventories

1. Global

Worldwide anthropogenic GHG emissions are tracked by the Intergovernmental Panel on Climate Change for industrialized nations (referred to as Annex I) and developing nations (referred to as Non-Annex I). Man-made GHG emissions data for Annex I nations is available through Year 2011. For the Year 2011, the sum of these emissions totaled approximately 25,865,994 gigagrams (Gg) of carbon dioxide equivalent (CO_{2e}), as shown in Table 4.7-2, *Top GHG Producer Countries and the European Union (EU)*. It is noted that the GHG emissions in more recent years may differ from the inventories presented in Table 4.7-2; however, the data is representative of currently available inventory data. (Urban Crossroads, Inc., 2016c, p. 6)

2. United States

The United States was the second-highest producer of GHG emissions in 2011. The primary GHGs emitted by human activities in the United States was CO_2, representing approximately 83-percent of the total United States' GHG emissions. Approximately 78-percent of the United States' CO_2 emissions result from fossil fuel combustion. (Urban Crossroads, Inc., 2016c, p. 7)

3. State of California

The California Air Resources Board (CARB) compiles GHG inventories for the State of California. Based upon the 2008 GHG inventory data (which is the most recent year for which data is available), California emitted 474 million metric tons (MMT) CO_{2e} including emissions resulting from imported electrical power. Based on the CARB inventory data and GHG inventories compiled by the World

Table 4.7-2 Top GHG Producer Countries and the European Union (EU)

Emitting Countries	GHG Emissions (Gg CO2e)
China	10,975,500
United States	6,665,700
European Union (28 member countries)	4,544,224
Russian Federation	2,322,220
India	3,013,770
Japan	1,344,580
Total	**28,865,994**

Source: (Urban Crossroads, Inc., 2016c, Table 2-1)

Resources Institute, California's total statewide GHG emissions rank second in the United States (Texas is ranked first). (Urban Crossroads, Inc., 2016c, p. 7)

4. Project Site

At the time the NOP for this EIR was issued (August 31, 2015), the Project site was mostly undeveloped and vacant, with exception of the southwest corner of the site which contained a mobile home and a concrete pad that is used for storage of construction equipment. The GHG emissions from one mobile home is nominal and does not require analysis under exiting conditions.

E. Potential Effects of Climate Change in California

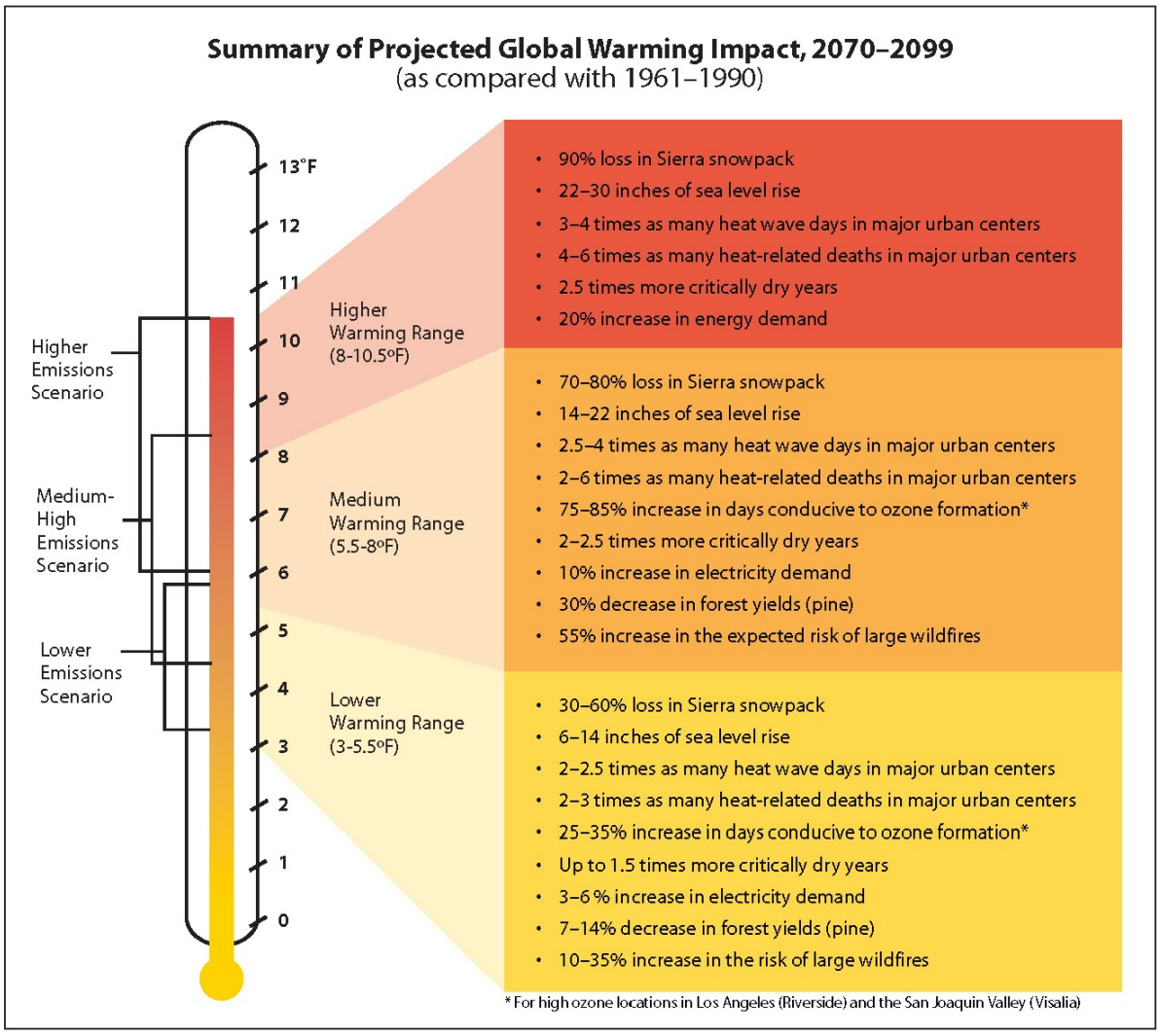
The California Environmental Protection Agency (CalEPA) published a report titled "Scenarios of Climate Change in California: An Overview" (herein called the "Climate Scenarios report") in February 2006, that is generally instructive about effects of climate change in California. The Climate Scenarios report used a range of emissions scenarios developed by the Intergovernmental Panel on Climate Change (IPCC) to project a series of potential warming ranges (i.e., temperature increases) that may occur in California during the 21st century: lower warming range (3.0-5.5°F); medium warming range (5.5-8.0°F); and higher warming range (8.0-10.5°F). (California Climate Change Center, 2006)

In addition, the California Natural Resources Agency adopted a "California Climate Adaptation Strategy" in 2009. This report details many vulnerabilities arising from climate change with respect to matters such as temperature extremes, sea level rise, wildfires, floods and droughts and precipitation changes, and responds to the Governor's Executive Order S-13-2008 that called on state agencies to develop California's strategy to identify and prepare for expected climate impacts (California NRA, 2009).

According to these reports, substantial temperature increases arising from increased GHG emissions worldwide could result in a variety of effects to the people, economy, and environment of California, with the severity of the effects depending upon actual future emissions of GHGs and associated degree

of warming. Table 4.7-3, *Summary of Global Warming Impact, 2070-2099 (as compared with 1961-1990)*, presents potential impacts of global warming within California.

Table 4.7-3 Summary of Global Warming Impact, 2070-2099 (as compared with 1961-1990)



Source: (Urban Crossroads, Inc., 2016c, Exhibit 2-A)

Based on the estimated scenarios presented in the Climate Scenario and California Climate Adaption Strategy reports, the climate change impacts in California have the potential to include, but are not limited to, the following areas. For more information, refer to Sections 2.4 and 2.5 of *Technical Appendix F* and the reference sources cited therein.

2. Human Health Effects

The potential human health effects related directly to GHG emissions (including CO_2, N_2O, and CH_4) from development projects are still being debated in the scientific community. The contribution that these GHGs make to GCC have the potential to cause adverse effects to human health in various ways. Increases in the Earth's ambient temperatures would result in more intense heat waves, causing more heat-related deaths. Scientists also purport that higher ambient temperatures would increase disease survival rates and result in more widespread disease. Climate change also could cause shifts in weather patterns, potentially resulting in devastating droughts and food shortages in some areas.

3. Water Resource / Supply Effects

A vast network of man-made reservoirs and aqueducts captures and transports water throughout the state from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages. Additionally, if temperatures continue to increase, more precipitation could fall as rain instead of snow, and the snow that does fall could melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 percent to 90 percent. The loss of snowpack could pose challenges to water managers, hamper hydropower generation, and adversely affect winter tourism. The State's water supplies are also at risk from rising sea levels. An influx of salt water could degrade California's estuaries, wetlands, and groundwater aquifers and be a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta – a major fresh water supply.

4. Agriculture Effects

Increased temperatures could cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. California farmers could face water shortages. Crop growth and development could change, as could the intensity and frequency of pest and disease outbreaks. Faster plant growth could worsen the quantity and quality of yield for some crops such as wine grapes, fruit, and nuts. Although higher CO_2 levels can stimulate plant production and increase plant water-use efficiency, there may still be a water shortage for the agricultural industry. In addition, continued GCC could shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants.

5. Forest and Landscape Effects

GCC has the potential to intensify the current threat to forests and landscapes by increasing the risk of wildfire and altering the distribution and character of natural vegetation. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55-percent, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout the

state. Continued GCC also has the potential to alter natural ecosystems and biological diversity, including a decrease in forest productivity, as a result of increasing temperatures.

6. Sea Level Effects

Rising sea levels, more intense coastal storms, and warmer water temperatures could increasingly threaten the state's coastal regions. Under the higher warming range scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate low-lying coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats. Under the lower warming range scenario, sea level could rise 12 to 14 inches by 2100.

F. Regulatory Setting

Below is an account of the regulatory programs, policies, laws, and regulations that are applicable to GHG emissions and GCC in California. For more information, refer to Section 2.7 of *Technical Appendix F* and the reference sources cited therein.

1. International Regulation and Kyoto Protocol

In 1988, the United Nations established the Intergovernmental Panel on Climate Change to evaluate the impacts of global warming and to develop strategies that nations could implement to curtail GCC. In 1992, the United States joined other countries around the world in signing the United Nations' Framework Convention on Climate Change (UNFCCC) agreement with the goal of controlling greenhouse gas emissions. As a result, the Climate Change Action Plan was developed to address the reduction of GHGs in the United States. The Plan currently consists of more than 50 voluntary programs for member nations to adopt. (Urban Crossroads, Inc., 2016c, p. 15)

The Kyoto Protocol is a treaty made under the UNFCCC and was the first international agreement to regulate GHG emissions. Some have estimated that if the commitments outlined in the Kyoto Protocol are met, global GHG emissions could be reduced an estimated 5 percent from 1990 levels during the first commitment period of 2008-2012. Notably, while the United States is a signatory to the Kyoto Protocol, Congress has not ratified the Protocol and the United States is not bound by the Protocol's commitments. In December 2009, international leaders from 192 nations met in Copenhagen to address the future of international climate change commitments post-Kyoto. (Urban Crossroads, Inc., 2016c, p. 16)

2. Federal Regulation and the Clean Air Act

Coinciding with the 2009 meeting of international leaders in Copenhagen, on December 7, 2009, the EPA issued an Endangerment Finding under § 202(a) of the Clean Air Act (CAA), opening the door to federal regulation of GHGs. The Endangerment Finding notes that GHGs threaten public health and welfare and are subject to regulation under the CAA. To date, the EPA has not promulgated regulations on GHG emissions, but it has begun to develop them. (Urban Crossroads, Inc., 2016c, p. 16)

Previously the EPA had not regulated GHGs under the CAA because it asserted that the Act did not authorize it to issue mandatory regulations to address GCC and that such regulation would be unwise without an unequivocally established causal link between GHGs and the increase in global surface air temperatures. In Massachusetts v. Environmental Protection Agency et al. (127 S. Ct. 1438 [2007]); however, the U.S. Supreme Court held that GHGs are pollutants under the CAA and directed the EPA to decide whether the gases endangered public health or welfare. The EPA had also not moved aggressively to regulate GHGs because it expected Congress to make progress on GHG legislation, primarily from the standpoint of a cap-and-trade system. However, proposals circulated in both the House of Representative and Senate have been controversial and it may be some time before the U.S. Congress adopts major climate change legislation. The EPA's Endangerment Finding paves the way for federal regulation of GHGs with or without Congress. (Urban Crossroads, Inc., 2016c, p. 16)

Although global climate change did not become an international concern until the 1980s, efforts to reduce energy consumption began in California in response to the oil crisis in the 1970s, resulting in the incidental reduction of greenhouse gas emissions. In order to manage the state's energy needs and promote energy efficiency, AB 1575 created the California Energy Commission (CEC) in 1975. (Urban Crossroads, Inc., 2016c, p. 16)

3. Title 24 Energy Standards

The California Energy Commission (CEC) first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods. The latest revisions (2013 Building Energy Efficiency Standards) were adopted in 2012 and became effective on July 1, 2014. The 2013 Building Energy Efficiency Standards are 25 percent more efficient than the previous Building Energy Efficiency Standards for residential construction and 30 percent more efficient than the previous Standards for nonresidential construction. (Urban Crossroads, Inc., 2016c, pp. 16-17)

Part 11 of the Title 24 is referred to as the California Green Building Standards Code (CALGreen Code). The purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality." The CALGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC). Unless otherwise noted in the regulation, all newly constructed buildings in California are subject of the requirements of the CALGreen Code. (Urban Crossroads, Inc., 2016c, p. 17)

CALGreen contains both mandatory and voluntary measures, for non-residential land uses there are 39 mandatory measures including, but not limited to: exterior light pollution reduction, wastewater reduction by 20%, and commissioning of projects over 10,000 s.f. There are two tiers of voluntary measures for Non-Residential land uses for a total of 36 additional elective measures. (Urban Crossroads, Inc., 2016c, pp. 15-16)

The 2013 version of CALGreen (in effect when the NOP for this EIR was released in 2015) included additions and amendments to the water efficiency standards for non- residential buildings in order to comply with the reduced flow rate table. The 2013 CALGreen also was rewritten to clarify and definitively identify the requirements and applicability for residential and nonresidential buildings. (Urban Crossroads, Inc., 2016c, pp. 17-18) The 2016 version of CALGreen (currently in effect as of January 1, 2017) added additional requirements for non-residential construction related to planning and design, water efficiency and water conservation, and solid waste diversion.

4. California Assembly Bill No. 1493 (AB 1493)

AB 1493 requires CARB to develop and adopt the nation's first greenhouse gas emission standards for automobiles. The Legislature declared in AB 1493 that global warming was a matter of increasing concern for public health and environment in California. Further, the legislature stated that technological solutions to reduce GHG emissions would stimulate the California economy and provide jobs. (Urban Crossroads, Inc., 2016c, p. 18)

To meet the requirements of AB 1493, CARB approved amendments to the California Code of Regulations (CCR) adding GHG emission standards to California's existing motor vehicle emission standards in 2004. Amendments to CCR Title 13 §§ 1900 and 1961 and adoption of § 1961.1 require automobile manufacturers to meet fleet average GHG emission limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty passenger vehicle weight classes beginning with the 2009 model year. Emission limits are further reduced each model year through 2016. (Urban Crossroads, Inc., 2016c, p. 18)

In December 2004 a group of car dealerships, automobile manufacturers, and trade groups representing automobile manufacturers filed suit against CARB to prevent enforcement of CCR Title 13 §§ 1900 and 1961 as amended by AB 1493 and CCR Title 13 § 1961.1 (Central Valley Chrysler-Jeep et al. v. Catherine E. Witherspoon, in her official capacity as Executive Director of the California Air Resources Board, et al.). The suit, heard in the U.S. District Court for the Eastern District of California, contended that California's implementation of regulations that in effect regulate vehicle fuel economy violates various federal laws, regulations, and policies. In January 2007, the judge hearing the case accepted a request from the State Attorney General's office that the trial be postponed until a decision is reached by the U.S. Supreme Court on a separate case addressing GHGs. In the Supreme Court Case, Massachusetts vs. EPA, the primary issue in question is whether the federal CAA provides authority for U.S. EPA to regulate CO_2 emissions. In April 2007, the U.S. Supreme Court ruled in Massachusetts' favor, holding that GHGs are air pollutants under the CAA. On December 11, 2007, the judge in the Central Valley Chrysler-Jeep case rejected each plaintiff's arguments and ruled in

California's favor. On December 19, 2007, the U.S. EPA denied California's waiver request. California filed a petition with the Ninth Circuit Court of Appeals challenging U.S. EPA's denial on January 2, 2008. (Urban Crossroads, Inc., 2016c, p. 18)

The Obama administration subsequently directed the U.S. EPA to re-examine their decision. On May 19, 2009, challenging parties, automakers, the State of California, and the federal government reached an agreement on a series of actions that would resolve these current and potential future disputes over the standards through model year 2016. In summary, the U.S. EPA and the U.S. Department of Transportation agreed to adopt a federal program to reduce GHGs and improve fuel economy, respectively, from passenger vehicles in order to achieve equivalent or greater greenhouse gas benefits as the AB 1493 regulations for the 2012–2016 model years. Manufacturers agreed to ultimately drop current and forego similar future legal challenges, including challenging a waiver grant, which occurred on June 30, 2009. The State of California committed to (1) revise its standards to allow manufacturers to demonstrate compliance with the fleet-average GHG emission standard by "pooling" California and specified State vehicle sales; (2) revise its standards for 2012–2016 model year vehicles so that compliance with U.S. EPA-adopted GHG standards would also comply with California's standards; and (3) revise its standards, as necessary, to allow manufacturers to use emissions data from the federal Corporate Average Fuel Economy (CAFE) program to demonstrate compliance with the AB 1493 regulations. Both of these programs are aimed at light-duty auto and light-duty trucks. (Urban Crossroads, Inc., 2016c, pp. 18-19)

CARB's on-road heavy-duty diesel vehicles regulations require diesel trucks and buses that operate in California to be upgraded to reduce emissions. Heavy trucks were required to be retrofitted with PM filters beginning January 1, 2012, and older trucks started to be replaced on January 1, 2015. CARB reports that by January 1, 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent. The heavy-duty vehicles regulation applies to nearly all privately- and federally-owned diesel fueled trucks and buses and to privately and publicly owned school buses with a gross vehicle weight rating (GVWR) greater than 14,000 pounds. (CaElPA, 2015)

5. Executive Order S-3-05

Executive Order S-3-05, which was signed by Governor Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra's snow pack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, Executive Order S-3-05 established total greenhouse gas emission targets. Specifically, emissions are to be reduced to the 1990 level by 2020 and to 80-percent below the 1990 level by 2050. The Executive Order directed the Secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce greenhouse gas emissions to the target levels. The Secretary also is required to submit biannual reports to the Governor and state Legislature describing: (1) progress made toward reaching the emission targets; (2) impacts of global warming on California's resources; and (3) mitigation and adaptation plans to combat these impacts. To comply with Executive Order S-3-05, the Secretary of the CalEPA created a Climate Action Team (CAT) made up of members from various state agencies and

commission. CAT released its first report in March 2006. The report proposed to achieve the targets by building on voluntary actions of California businesses, local government and community actions, as well as through state incentive and regulatory programs. (Urban Crossroads, Inc., 2016c, p. 19)

6. California Assembly Bill 32 (AB 32)

In September 2006, Governor Schwarzenegger signed AB 32, the California Climate Solutions Act of 2006. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by the year 2020. This reduction is to be accomplished through an enforceable statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32. (Urban Crossroads, Inc., 2016c, p. 19)

AB 32 required that CARB adopt a quantified cap on GHG emissions representing 1990 emissions levels and disclose how it arrived at the cap; institute a schedule to meet the emissions cap; and develop tracking, reporting, and enforcement mechanisms to ensure that the state achieves reductions in GHG emissions necessary to meet the cap. AB 32 also included guidance to institute emissions reductions in an economically efficient manner and conditions to ensure that businesses and consumers are not unfairly affected by the reductions. (Urban Crossroads, Inc., 2016c, pp. 19-20)

In November 2007, CARB completed its estimates of 1990 GHG levels. Net emission 1990 levels were estimated at 427 million metric tons (MMTs) (emission sources by sector were: transportation – 35 percent; electricity generation – 26 percent; industrial – 24 percent; residential – 7 percent; agriculture – 5 percent; and commercial – 3 percent). Accordingly, 427 MMTs of CO_2 equivalent was established as the emissions limit for 2020. For comparison, CARB's estimate for baseline GHG emissions was 473 MMT for 2000 and 532 MMT for 2010. "Business as usual" conditions (without the reductions to be implemented by CARB regulations) for 2020 were projected to be 596 MMTs. (Urban Crossroads, Inc., 2016c, p. 20)

In December 2007, CARB approved a regulation for mandatory reporting and verification of GHG emissions for major sources. This regulation covered major stationary sources such as cement plans, oil refineries, electric generating facilities/providers, and co-generation facilities, which comprise 94 percent of the point source CO2 emissions in the State. (Urban Crossroads, Inc., 2016c, p. 20)

On December 11, 2008, CARB adopted a scoping plan to reduce GHG emissions to 1990 levels. The Scoping Plan's recommendations for reducing GHG emissions to 1990 levels by 2020 include emission reduction measures, including a cap-and-trade program linked to Western Climate Initiative partner jurisdictions, green building strategies, recycling and waste-related measures, as well as Voluntary Early Actions and Reductions. Implementation of individual measures must begin no later

than January 1, 2012, so that the emissions reduction target can be fully achieved by 2020. (Urban Crossroads, Inc., 2016c, p. 20)

Table 4.7-4, *CARB Scoping Plan Reduction Measures Towards 2020 Target*, shows the proposed reductions from regulations and programs outlined in the Scoping Plan. While local government operations were not accounted for in achieving the Year 2020 emissions reduction, local land use changes are estimated to result in a reduction of 5 $MMTCO_2e$, which is approximately 3 percent of the 2020 GHG emissions reduction goal. In recognition of the critical role local governments will play in successful implementation of AB 32, CARB is recommending GHG reduction goals of 15 percent of 2006 levels by 2020 to ensure that municipal and community-wide emissions match the state's reduction target. According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 $MMTCO_2e$ (or approximately 1.2 percent of the GHG reduction target). (Urban Crossroads, Inc., 2016c, p. 20)

Overall, CARB determined that achieving the 1990 emission level in 2020 would require a reduction in GHG emissions of approximately 28.5 percent in the absence of new laws and regulations (referred to as "Business-As-Usual" (BAU). The Scoping Plan evaluates opportunities for sector-specific reductions, integrates all CARB and CAT early actions and additional GHG reduction measures, identifies additional measures to be pursued as regulations, and outlines the role of the cap-and-trade program. (Urban Crossroads, Inc., 2016c, pp. 20-21)

In connection with its preparation of the August 2011 Final Supplement to the Scoping Plan's Functional Equivalent Document, CARB released revised estimates of the 2020 emissions level projection in light of the economic recession and the availability of updated information from development of measure-specific regulations. Based on the new economic data, CARB determined the 2020 emissions level projection in the BAU condition would be reduced from 596 metric tons of CO_2 equivalent (MTCO2e) to 545 $MTCO_{2e}$. Under this scenario, achieving the 1990 emissions level in 2020 would require a reduction of GHG emissions of 118 $MTCO_{2e}$, or 21.7 percent (down from 28.5 percent), from the BAU condition. (Urban Crossroads, Inc., 2016c, p. 22)

When the 2020 emissions level projection also was updated to account for implemented regulatory measures, including Pavley (vehicle model-years 2009 - 2016) and the renewable portfolio standard (12% - 20%), the 2020 projection in the BAU condition was reduced further to 507 $MTCO_{2e}$. As a result, based on the updated economic and regulatory data, CARB determined that achieving the 1990 emissions level in 2020 would now only require a reduction of GHG emissions of 80 $MTCO_{2e}$, or approximately 16 percent (down from 28.5 percent), from the BAU condition. (Urban Crossroads, Inc., 2016c, p. 22)

On February 10, 2014, CARB released a Draft Proposed First Update of the Scoping Plan. The draft recalculates 1990 GHG emissions using new global warming potentials identified in the IPCC Fourth Assessment Report released in 2007. Using those GWPs, the 427 $MTCO_{2e}$ 1990 emissions level and

2020 GHG emissions limit identified in the 2008 Scoping Plan would be slightly higher, at 431 $MTCO_{2e}$. Based on the revised 2020 emissions level projection identified in the 2011 Final Supplement and the updated 1990 emissions levels identified in the discussion draft of the First Update, achieving the 1990 emissions level in 2020 would require a reduction of 78 $MTCO_{2e}$ (down from 509 $MTCO_{2e}$), or approximately 15.3 percent (down from 28.5 percent), from the BAU condition. (Urban Crossroads, Inc., 2016c, p. 22)

Although CARB has released an update to the Scoping Plan and reduction targets from BAU, it is still appropriate to utilize the previous 28.5% reduction from BAU since the modeling tools available are not able to easily segregate the inclusion of the renewable portfolio standards, and Pavley requirements that are now included in the revised BAU scenario. (Urban Crossroads, Inc., 2016c, p. 22)

7. California Senate Bill No. 1368 (SB 1368)

In 2006, the State Legislature adopted Senate Bill 1368 (SB 1368), which was subsequently signed into law by the Governor. SB 1368 directs the California Public Utilities Commission (CPUC) to adopt a greenhouse gas emission performance standard (EPS) for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than five years from resources that exceed the emissions of a relatively clean, combined cycle natural gas power plant. Due to the carbon content of its fuel source, a coal-fired plant cannot meet this standard because such plants emit roughly twice as much carbon as natural gas, combined cycle plants. Accordingly, the new law will effectively prevent California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. Thus, SB 1368 will lead to dramatically lower greenhouse gas emissions associated with California energy demand, as SB 1368 will effectively prohibit California utilities from purchasing power from out of state producers that cannot satisfy the EPS standard required by SB 1368. (Urban Crossroads, Inc., 2016c, pp. 22-23)

8. Executive Order S-01-07

On January 18, 2007, California Governor Schwarzenegger, through Executive Order S-01-07, mandated a statewide goal to reduce the carbon intensity of California's transportation fuel by at least 10 percent by 2020. The order also requires that a California specific Low Carbon Fuel Standard be established for transportation fuels. (Urban Crossroads, Inc., 2016c, p. 24)

9. Senate Bills 1078 and 107 and Executive Order S-14-08

SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010. In November 2008 Governor Schwarzenegger signed Executive Order S-14-08, which expands the state's Renewable Energy Standard to 33 percent renewable power by 2020. (Urban Crossroads, Inc., 2016c, p. 24)

Table 4.7-4 CARB Scoping Plan Reduction Measures Towards 2020 Target

Recommended Reduction Measures	*Reductions Counted toward 2020 Target of 169 MMT CO2e*	*Percentage of Statewide 2020 Target*
Cap and Trade Program and Associated Measures		
California Light-Duty Vehicle GHG Standards	31.7	19%
Energy Efficiency	26.3	16%
Renewable Portfolio Standard (33 percent by 2020)	21.3	13%
Low Carbon Fuel Standard	15	9%
Regional Transportation-Related GHG Targets[1]	5	3%
Vehicle Efficiency Measures	4.5	3%
Goods Movement	3.7	2%
Million Solar Roofs	2.1	1%
Medium/Heavy Duty Vehicles	1.4	1%
High Speed Rail	1.0	1%
Industrial Measures	0.3	0%
Additional Reduction Necessary to Achieve Cap	34.4	20%
Total Cap and Trade Program Reductions	146.7	87%
Uncapped Sources/Sectors Measures		
High Global Warming Potential Gas Measures	20.2	12%
Sustainable Forests	5	3%
Industrial Measures (for sources not covered under cap and trade program)	1.1	1%
Recycling and Waste (landfill methane capture)	1	1%
Total Uncapped Sources/Sectors Reductions	27.3	16%
Total Reductions Counted toward 2020 Target	174	100%
Other Recommended Measures – Not Counted toward 2020 Target		
State Government Operations	1.0 to 2.0	1%
Local Government Operations	To Be Determined[2]	NA
Green Buildings	26	15%
Recycling and Waste	9	5%
Water Sector Measures	4.8	3%
Methane Capture at Large Dairies	1	1%
Total Other Recommended Measures – Not Counted toward 2020 Target	42.8	NA

Source: CARB. 2008, MMT CO_{2e}: million metric tons of CO_{2e}

[1]Reductions represent an estimate of what may be achieved from local land use changes. It is not the SB 375 regional target.

[2]According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 million metric tons of $CO2_e$ (or approximately 1.2 percent of the GHG reduction target).However, these reductions were not included in the Scoping Plan reductions to achieve the 2020 Target.

Source: (Urban Crossroads, Inc., 2016c, Table 3-2)

10. Senate Bill 375 (SB 375)

SB 375, signed in September 2008 (Chapter 728, Statutes of 2008), aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation. SB 375 requires metropolitan planning organizations (MPOs) to adopt a sustainable communities strategy (SCS) or alternative planning strategy (APS) that will prescribe land use allocation in that MPO's regional transportation plan. CARB, in consultation with MPOs, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every eight (8) years but can be updated every four (4) years if advancements in emissions technologies affect the reduction strategies to achieve the targets. CARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs did not meet the GHG reduction targets, transportation projects are not eligible for funding programmed after January 1, 2012. (Urban Crossroads, Inc., 2016c, p. 24)

The Southern California Association of Governments (SCAG) *2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)* is applicable to the Project area.

11. Executive Order B-30-15

On April 29, 2015, Governor Edmund G. Brown Jr. issued Executive Order B-30-15, which documents the governor's goal to reduce GHG emissions in California to 40 percent below 1990 levels by 2030. The 2030 target serves as a benchmark goal on the way to achieving the GHG reductions goal offered by Governor Schwarzenegger via Executive Order S-3-05 (i.e., 80 percent below 1990 greenhouse gas emissions levels by 2050). Executive Order B-30-15 is disclosed herein for informational purposes. Executive Order B-30-15 was not adopted by a public agency through a public review process that requires analysis pursuant to CEQA Guidelines § 15064.4 and also has not been subsequently validated by a statute as an official GHG reduction target of the State of California. A regulatory requirement for statewide GHG reductions for 2030 is expected to be adopted by the California Legislature at a future date.

12. *Senate Bill 32*

On September 8, 2016 (after the NOP for this EIR was issued for public review), Governor Jerry Brown signed the Senate Bill (SB) 32 and its companion bill, Assembly Bill (AB) 197. SB 32 requires the state to reduce statewide GHG emissions to 40% below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15. The new legislation builds upon the AB 32 goal of 1990 levels by 2020 and provides an intermediate goal to achieving S-3-05, which sets a statewide greenhouse gas reduction target of 80% below 1990 levels by 2050.

At this time, no further analysis is necessary or required by CEQA as it pertains to Executive Order B-30-15 and SB 32 because the Project's horizon (buildout) year would occur before 2020. Pursuant to guidance from the Association of Environmental Professionals (AEP), GHG emissions "…should be identified for the project horizon year and lead agencies should consider the project horizon year when applying a threshold of significance" (AEP, 2016, p. 32). Because the Project's buildout year would

occur before 2020, the Project's GHG emissions are more appropriately evaluated against the County's CAP. Demonstrating compliance with the County's CAP would show that the Project would not inhibit Riverside County's ability to achieve the 2030 target established by SB 32.

G. *County of Riverside Climate Action Plan (CAP)*

The County of Riverside adopted a CAP on December 8, 2015, which provides guidance on how to analyze GHG emissions and determine significance during the CEQA review of proposed development projects within the County. To address the state's requirement to reduce GHG emissions, the County prepared its CAP with the goal of reducing GHG emissions within the County by 15% below "existing" 2008 levels by the year 2020. The County's target is consistent with the AB 32 target and ensures that the County will be providing GHG reductions locally that will complement state efforts to reduce GHG emissions. Because the County's CAP addresses GHG emissions reductions and is consistent with the requirements of AB 32 and international efforts to reduce GHG emissions, compliance with the CAP fulfills the description of a project-specific mitigation found in the State CEQA Guidelines. (Urban Crossroads, 2017a, p. 33)

The CAP includes GHG inventories of community-wide and municipal sources based on the most recent data available for the year 2008. Sources of emissions include transportation, electricity and natural gas, landscaping, water and wastewater pumping and treatment and decomposition of solid waste. Riverside County's 2008 inventory amounted to 7,012,983 $MTCO_{2e}$ community-wide and 226,753 $MTCO_{2e}$ from municipal operations. Implementation of the CAP would reduce 4,288,863 $MTCO_{2e}$ per year from new development by year 2020 as compared to the 2020 unmitigated conditions. (County of Riverside, 2015, p. 3)

4.7.2 METHODOLOGY FOR ESTIMATING GREENHOUSE GAS EMISSIONS

CEQA Guidelines § 15064.4(a)(1) states that a CEQA lead agency may use a model or methodology to quantify GHG emissions associated with a project. On October 2, 2013, the SCAQMD, in conjunction with the California Air Pollution Control Officers Association (CAPCOA) released the latest version (v2013.2.2.) of the California Emissions Estimator Model (CalEEMod). The purpose of this model is to estimate air quality and GHG emissions from direct and indirect sources and quantify applicable air quality and GHG reductions achieved from mitigation measures. As such, the October 2013 (v2013.2.2.) CalEEMod was used to estimate Project-related emissions to determine construction and operational air quality impacts. Output from the model runs for both Project-related construction and operational activity are provided in Appendix 3.1 of *Technical Appendix F* (Urban Crossroads, Inc., 2016c, p. 29)

Due to the lack of consensus scientific guidance on life-cycle analysis (LCA) methodology, Urban Crossroads, Inc. did not conduct a LCA, which assesses economy-wide GHG emissions from the processes in manufacturing and transporting all raw materials used in the project development and infrastructure. A LCA depends on emission factors or econometric factors that are not well established for all processes as of the date this EIR was written (2015); accordingly, a LCA would be extremely

speculative. Additionally, the science to calculate life-cycle emissions is not yet established or well defined, therefore SCAQMD has not recommended and is not requiring life-cycle emissions analysis. (Urban Crossroads, Inc., 2016c, pp. 29-30)

B. Methodology for Estimating Project-Related Construction Emissions

Construction activities associated with the proposed Project would result in emissions of CO_2 and CH_4 from construction activities. According to the Project's Air Quality Impact Analysis (*Technical Appendix B1*), construction activities associated with the proposed Project include:

- Demolition
- Grading/Blasting
- Underground Utilities
- Building Construction
- Landscape
- Paving and Site Finishes
- Architectural Finishes

Information about the Project's anticipated construction schedule and equipment fleet, as supplied by the Project Applicant, was input into the CalEEMod model and defaults for all other assumptions were utilized. Refer to Appendix 3.1 of *Technical Appendix F* to this EIR for more details on the construction emissions estimate methodology. Refer also to the specific detailed modeling inputs/outputs contained in Appendix 3.1 of *Technical Appendix F*. A summary of construction equipment assumptions by phase that were used as model inputs is provided in Section 3.0, Pr*oject Description.*

For construction-phase Project GHG emissions, the Project's emissions were quantified and amortized over the life of the Project. To amortize the emissions over the life of the Project, the SCAQMD recommends calculating the total greenhouse gas emissions for the construction activities, dividing it by the a 30-year project life then adding that number to the annual operational phase GHG emissions. As such, construction emissions were amortized over a 30-year period and added to the annual operational phase GHG emissions. (Urban Crossroads, Inc., 2016c, p. 30)

C. Methodology for Estimating Project-Related Operational Emissions

Operational activities associated with the proposed Project would result in emissions of CO_2, CH_4, and N_2O from the following primary sources:

- Area Source Emissions
- Energy Source Emissions
- Mobile Source Emissions
- Solid Waste
- Water Supply, Treatment, and Distribution
- On-Site Equipment Emissions

Landscape Maintenance Equipment

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shedders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. The emissions associated with landscape maintenance equipment were calculated based on assumptions provided in the CalEEMod model. (Urban Crossroads, Inc., 2016c, p. 30)

Natural Gas and Electricity

GHGs are emitted from buildings as a result of activities for which electricity and natural gas are typically used as energy sources. Combustion of any type of fuel emits CO_2 and other GHGs directly into the atmosphere; these emissions are considered direct emissions associated with a building. GHGs are also emitted during the generation of electricity from fossil fuels; these emissions are considered to be indirect emissions. Unless otherwise noted, CalEEMod™ default parameters were used in the greenhouse gas impact analysis (*Technical Appendix F*) and herein. (Urban Crossroads, Inc., 2016c, pp. 30-31)

Solid Waste

The Project would result in the generation and disposal of solid waste. A large percentage of this waste would be diverted from landfills by a variety of means, such as reducing the amount of waste generated, recycling, and/or composting. The remainder of the waste not diverted would be disposed of at a landfill. GHG emissions from landfills are associated with the anaerobic breakdown of material. GHG emissions associated with the disposal of solid waste associated with the proposed Project were calculated by the CalEEMod™ model using default parameters. (Urban Crossroads, Inc., 2016c, p. 34)

Water Supply, Treatment, and Distribution

Indirect GHG emissions result from the production of electricity used to convey, treat, and distribute water and wastewater. The amount of electricity required to convey, treat, and distribute water depends on the volume of water as well as the sources of the water. The amount of electricity required to convey, treat, and distribute water depends on the volume of water as well as the sources of water. Unless otherwise noted, CalEEMod default parameters were used in the greenhouse gas impact analysis (*Technical Appendix F)* and herein. (Urban Crossroads, Inc., 2016c, p. 34)

On-Site Equipment

It is common for high cube warehouse buildings to require cargo handling equipment to move empty containers and empty chassis to and from the various pieces of cargo handling equipment that receive and distribute containers. The most common type of cargo handling equipment is the yard truck that is designed for moving cargo containers. Yard trucks are also known as yard goats, utility tractors (UTRs), hustlers, yard hostlers, and yard tractors. Yard trucks have a horsepower (hp) range of approximately 175 hp to 200 hp. Because the occupants of the proposed Project's buildings are not

yet identified and operating characteristics cannot be known with certainty, this analysis relies on average on-site equipment usage for warehouse buildings in southern California. Based on the latest available information from SCAQMD, high-cube warehouse projects typically have 3.6 yard trucks per one million square feet of building space. For the air quality impact analysis of the proposed Project, Urban Crossroads, Inc. analyzed the use of on-site modeled operational equipment including five (5) 200 hp yard tractors operating at 4 hours a day for 365 days of the year. In addition, to the use of yard trucks operating at the Project site, forklifts are a common piece of equipment used in warehouse operations; therefore, Urban Crossroads, Inc. analyzed the use of five (5) 89 hp yard forklifts operating at 4 hours a day for 365 days of the year. The emissions associated with on-site equipment were calculated using the CalEEMod model. (Urban Crossroads, Inc., 2016c, p. 34)

Vehicles

A majority of the proposed Project's GHG emissions would result from mobile sources, including daily operation of motor vehicles by visitors, employees, and customers. Project-related vehicular GHG emissions are dependent on the Project's daily vehicle trip generation and the characteristics of those trips. Information related to the Project's daily vehicle trip generation and trip characteristics was obtained from the Project's traffic report contained as *Technical Appendix J1*.

As summarized in *Technical Appendix J1*, the Project would generate 2,115 actual daily vehicle trips, including 1,309 passenger cars trips and 806 truck trips based on trip generation rates specified in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition, 2012. Use of the ITE rates are standard industry practice for the calculation of projected traffic volumes in traffic studies supporting CEQA compliance documents throughout California and are recommended by the SCAQMD. It is noted that the Project's traffic impact analysis (*Technical Appendix J1*) also presents the total Project vehicle trips in terms of Passenger Car Equivalents (PCEs) in an effort to recognize and acknowledge the effects of heavy vehicles at intersections in the Project's study area and in accordance with traffic engineering best practices. The PCE trips were not used for the purposes of quantifying air pollutant emissions; rather to be more representative of actual emissions, the actual number of passenger cars (including light trucks) and heavy trucks were used in the air quality analysis. (Urban Crossroads, Inc., 2016a, p. 31)

The ITE Trip Generation manual includes data regarding the types of vehicles that are generated (passenger cars and trucks), but provides no guidance on vehicle mix (different sizes of trucks). While trucks, as a percentage of total traffic, was based on the ITE Trip Generation manual, data regarding the vehicle mix was obtained from a separate report- the SCAQMD recent Warehouse Truck Trip Study. The SCAQMD is currently recommending the use of the ITE Trip Generation manual in conjunction with their truck mix by axle-type to better quantify trip rates associated with local warehouse and distribution projects, as truck emission represent more than 90 percent of air quality impacts from these projects. This recommended procedure was utilized for the purposes of the analysis in the air quality impact analysis (*Technical Appendix B1)* (Urban Crossroads, Inc., 2016a, pp. 31-32)

A limitation inherent in calculating the projected vehicle emissions associated with any project is related to the estimation of trip length and vehicle miles traveled (VMT). VMT for a given project is calculated by the total number of vehicle trips to/from the Project multiplied by average trip length. This method of estimating VMT for use in calculating vehicle emissions likely results in the over-estimation and double-counting of emissions because, for warehouse buildings such as the Project, the land use is likely to attract (divert) existing vehicle trips that are already on the circulation system as opposed to generating new trips. In this regard, the Project would, to a large extent, redistribute existing mobile-source emissions rather than generate additional emissions within the Basin. As such, the estimation of the Project's vehicular-source emissions is likely overstated in that no credit for, or reduction in, emissions is assumed based on diversion of existing trips. (Urban Crossroads, Inc., 2016c, p. 32)

In the last five years, the SCAQMD has provided numerous comments on the trip length for warehouse/distribution and industrial land use projects. The SCAQMD asserts that the model-default trip length in CalEEMod and the URBan EMISsions (URBEMIS) 2007 model (version 9.2.4) would underestimate emissions. The SCAQMD asserts that for warehouse, distribution center, and industrial land use projects, most of the heavy-duty trucks would be hauling consumer goods, often from the Ports of Long Beach and Los Angeles (POLA and POLB) and/or to destinations outside of California. The SCAQMD states that for this reason, the CalEEMod and the URBan EMISsions model default trip length (approximately 12.6 miles) would not be representative of activities at like facilities. The SCAQMD generally recommends the use of a 40-mile one-way trip length. SCAG maintains a regional transportation model. In its most recent (2008) transportation validation for the 2003 Regional Model, SCAG indicates the average internal truck trip length for the SCAG region is 5.92 miles for Light Duty Trucks, 13.06 miles for Medium Duty Trucks, and 24.11 miles for Heavy Duty Trucks. (Urban Crossroads, Inc., 2016c, pp. 32-33)

Trip lengths and VMT estimates employed in the air quality impact analysis (*Technical Appendix B1*) generate vehicular-source emissions that would represent a maximum impact scenario. To maintain analytic consistency and establish the maximum impact scenario noted above, the following approach was utilized by Urban Crossroads, Inc. in calculating emissions associated with vehicles accessing the Project:

For passenger car trips, the CalEEMod default for a one-way trip length of 16.6 miles was assumed. For heavy duty trucks, an average trip length was derived from distances from the Project site to the far edges of the SCAB as follows. It is appropriate to stop the VMT calculation at the boundary of the SCAB because any activity beyond that boundary would be speculative. This approach is also consistent with professional industry practice. (Urban Crossroads, Inc., 2016c, p. 33)

- Project site to the Port of Los Angeles/Long Beach: 80 miles;
- Project site to East on State Route 60: 30 miles;
- Project site to San Diego County line: 60 miles;
- Project site to Inland Empire: 50 miles;

- Project site to Perris destinations: 10 miles;
- Project site to Moreno Valley destinations: 10 miles;

Assuming that 50% of all delivery trips will travel to and from the Project and the Port of Los Angeles/Long Beach, 10% go east on the State Route 60 (SR-60), 20% go to San Diego, 10% go to the Inland Empire, 5% go to Perris destinations, and the remainder as Moreno Valley destinations, the average truck trip length is calculated as 61 miles. (Urban Crossroads, Inc., 2016c, p. 33)

Urban Crossroads, Inc. utilized two separate model runs in order to more accurately model emissions resulting from vehicle operations. The first model run analyzed passenger car emissions, which incorporated a default trip length of 16.6 miles for passenger cars and a fleet mix of 100% Light-Duty-Auto vehicles (LDA). The second model run analyzed truck emissions, which incorporated an average truck trip length of 61 miles and a fleet mix of 22.03% Light-Heavy-Duty Trucks, 17.66% Medium-Heavy-Duty Trucks, and 60.31% Heavy-Duty Trucks. Detailed emission calculations are provided in Appendix 3.2 of *Technical Appendix B1*. (Urban Crossroads, Inc., 2016c, p. 33)

4.7.3 BASIS FOR DETERMINING SIGNIFICANCE

In order to assess the significance of a proposed Project's environmental impacts it is necessary to identify quantitative or qualitative thresholds which, if exceeded, would constitute a finding of significance. As discussed above in Subsection 4.7.1, while Project-related GHG emissions can be estimated, the direct impacts of such emissions on GCC and global warming cannot be determined on the basis of available science. There is no evidence at this time that would indicate that the emissions from a project the size of the proposed Project would directly or indirectly affect the global climate.

AB 32 states, in part, that "[g]lobal warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California." Because global warming is the result of GHG emissions, and GHGs are emitted by innumerable sources worldwide, the proposed Project would have no potential to result in a direct impact to global warming; rather, Project-related contributions to GCC, if any, only have potential significance on a cumulative basis. Therefore, the analysis below focuses on the Project's potential to contribute to GCC in a cumulatively considerable way.

The CEQA Guidelines indicate that a project would result in a significant impact on climate change if a project were to:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or

b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Under CEQA Guidelines §15064.4 CEQA lead agencies are directed to exercise their judgment when determining the methodologies and significance threshold(s) to apply when analyzing GHG impacts in the context of a particular project. Lead agencies are afforded broad discretion in making these determinations. Because the County's CAP addresses GHG emissions reduction, is in concert with international efforts to address global climate change, and includes specific local requirements that will substantially lessen cumulative effects, the County has determined that if the proposed Project complies with the County's CAP, it would fulfill the description of mitigation found in CEQA Guidelines §15130(a)(3) and §15183.5 and result in a less than significant GHG impact. (Urban Crossroads, Inc., 2016c, p. n.p.) Further, on November 30, 2015, the California Supreme Court in *Center for Biological Diversity v. California Department of Fish and Wildlife ("Newhall Ranch")* confirmed that a CEQA lead agency may utilize "geographically specific GHG emission reduction plans" such as climate action plans or greenhouse gas emission reduction plans to provide a basis for the tiering or streamlining of project-level CEQA analysis. The Riverside County CAP is a geographically specific plan that was adopted by the County of Riverside for the purpose of reducing GHG emissions under the control or influence of the County consistent with AB 32 and subsequent state legislation and state agency action to address climate change. This threshold is also consistent with the SCAQMD's draft interim threshold Tier 2, which consists of determining whether a project is consistent with a qualified greenhouse gas reduction plan. If a project is consistent with the CAP, it is considered to not directly or indirectly generate GHGs in quantities that would have a significant impact on the environment. Thus, projects that comply with the Riverside County CAP would comply with the County's applicable plan for the purpose of reducing the emissions of GHGs, and would not generate GHG emissions that would have a significant effect on the environment. If the Project does not comply with the County's CAP, a significant GHG impact would result, requiring mitigation.

The County also considered the following when making its determination to rely upon the above as the GHG significance thresholds for the proposed Project.

CARB's Preliminary Draft Staff Proposal for Interim Significance Thresholds

Separate from its Scoping Plan (approved in December of 2008), CARB issued a Staff Proposal in October 2008, as its first step toward developing recommended statewide interim thresholds of significance for GHGs that may be adopted by local agencies for their own use. CARB staff's objective in this proposal is to develop a threshold of significance that will result in the vast majority (approximately 90 percent statewide) of GHG emissions from new industrial projects being subject to CEQA's requirement to impose feasible mitigation. The proposal does not attempt to address every type of project that may be subject to CEQA, but instead focuses on common project types that, collectively, are responsible for substantial GHG emissions – specifically, industrial, residential, and commercial projects. CARB is developing these thresholds in these sectors to advance climate objectives, streamline project review, and encourage consistency and uniformity in the CEQA analysis of GHG emissions throughout the state. These draft thresholds are under revision in response to public comments. There is no timetable for finalized thresholds at this time.

As currently proposed by CARB staff, the threshold consists of a quantitative threshold of 7,000 metric tons (MT) of CO_{2e} per year for operational emissions (excluding transportation), and performance standards for construction and transportation emissions (which have not yet been developed). CARB's proposal was not final at the time that the NOP for this EIR was released for public review (August 31, 2015). Further, CARB's proposal sets forth draft thresholds for industrial projects that have high operational stationary GHG emissions, such as manufacturing plants, or uses that utilize combustion engines. Mobile source emissions are not addressed. The GHG emissions that would be emitted by the Project evaluated in this EIR would be mostly from mobile sources, and as such, the CARB proposal would not be applicable to the proposed Project because it excludes transportation (mobile) sources.

CARB's Draft Sustainable Freight Strategy

Specific to the warehouse, logistics, and goods movement industries, CARB released a concepts list in 2014 regarding their efforts to develop a Sustainable Freight Strategy (SFS). In 2015, CARB released a draft report named "Sustainable Freight: Pathways to Zero and Near-Zero Emissions" that focuses on ways for California to move toward a zero emissions transportation system (CARB, 2015). The report describes possible ways for this transition to occur, but does not impose any requirements or restrictions. A final SFS was published by CARB in 2016.

South Coast Air Quality Management District Recommendations for Significance Thresholds

In April 2008, the South Coast Air Quality Management District (SCAQMD) convened a "GHG CEQA Significance Threshold Working Group," in order to provide guidance to local lead agencies on determining the significance of GHG emissions identified in CEQA documents. The goal of the working group is to develop and reach consensus on an acceptable CEQA significance threshold for GHG emissions that would be utilized on an interim basis until CARB (or some other state agency) develops statewide guidance on assessing the significance of GHG emissions under CEQA. (Urban Crossroads, Inc., 2016c, p. 25)

Initially, SCAQMD staff presented the working group with a significance threshold that could be applied to various types of projects (residential, non-residential, industrial, etc.). However, final thresholds were never discussed or adopted for land development projects. Notwithstanding, in December 2008, SCAQMD staff presented the SCAQMD Governing Board with a significance threshold for development projects that are stationary sources of air pollutants where the SCAQMD is the lead agency. This threshold utilizes a tiered approach to determine a project's significance, with 10,000 $MTCO_{2e}$ as a numerical screening threshold for "industrial project" stationary sources of air pollution. More importantly it should be noted that when setting the 10,000 $MTCO_{2e}$ threshold, the SCAQMD did not consider mobile sources (vehicular travel), rather the threshold is based mainly on stationary source generators such as boilers, refineries, power plants, etc. Therefore, it would be misleading to apply a threshold that was developed without consideration for mobile sources to a

Project where the majority of emissions are related to mobile sources. Thus, there is no SCAQMD threshold that can be applied to this Project. (Urban Crossroads, Inc., 2016c, p. 25)

In 2010, the SCAQMD Working Group authored an alternative, tiered approach for evaluating the significance of GHG emissions from development projects. Under the Working Group's alternative approach, development projects that are not exempt from CEQA and that would exceed a numerical screening threshold (10,000 $MTCO_{2e}$ for industrial development) would result in a cumulatively considerable impact associated with GHG emissions, unless the project can demonstrate that it meets a project-level efficiency target or reduces emissions by an undefined percentage. The Working Group set the project-level efficiency target for the Year 2020 at 4.8 $MTCO_{2e}$ per service population. The Working Group made no formal recommendations to the SCAQMD regarding significance thresholds for GHG emissions, and the SCAQMD did not take action on the Working Group's alternative approach. The Working Group last convened in 2010 and it is unclear if the SCAQMD will re-initiate the working group or if the process has been abandoned altogether. (Urban Crossroads, Inc., 2016c, pp. 25-26)

Mobile source emissions are not addressed in the SCAQMD's Recommendations for Significance Thresholds. The GHG emissions that would be emitted by the Project evaluated in this EIR would be mostly from mobile sources, and as such, the SCAQMD's Recommendations for Significance Threshold would not be applicable to the proposed Project because it excludes transportation (mobile) sources.

County of Riverside Climate Action Plan

In conjunction with GPA No. 960, the County of Riverside certified Final EIR No. 521 and approved a Climate Action Plan (CAP). The County of Riverside released a draft CAP in February 2015. Changes made to GPA No. 960's CAP after the close of the February 2015 public review period are noted in the County of Riverside's CAP Errata. The CAP was formally adopted by the County of Riverside on December 8, 2015, which includes an Errata contained in Section 5 of the CAP document. The intent of the adopted CAP is help ensure that the impact of development on air quality is minimized, energy is conserved, and land use decisions made by Riverside County and all internal operations within Riverside County are consistent with adopted state legislation.

The CAP includes GHG inventories of community-wide and municipal sources based on the most recent data available for the year 2008. Sources of emissions include transportation, electricity and natural gas, landscaping, water and wastewater pumping and treatment and decomposition of solid waste. Riverside County's 2008 inventory amounted to 7,012,983 $MTCO_{2e}$ community-wide and 226,753 $MTCO_{2e}$ from municipal operations. Following the state's adopted AB 32 GHG reduction target, Riverside County set a goal to reduce emissions back to 1990 levels by the year 2020. (County of Riverside, 2015, pp. ES-1) The County of Riverside CAP includes reducing 4,288,863 $MTCO_{2e}$ per year from new development by year 2020 as compared to the 2020 unmitigated conditions. (County of Riverside, 2015, p. 3)

The development of the CAP coincides with Riverside County's General Plan Update. A community-wide emissions inventory is also calculated for the horizon year 2035. Various state policies, such as those mentioned above, have enacted programs that also will contribute to reduced GHG emissions in Riverside County by the year 2020. In order to reach the reduction target, the County of Riverside would also need to implement the additional reduction measures described in the CAP. The measures encourage energy efficiency and renewable energy in buildings, transit-oriented planning, water conservation, and increase waste diversion. (County of Riverside, 2015, pp. ES-1 through ES-2)

As stated in the CAP Chapter 7, Section 7.5, "Implementation; Project Review":

> *" The CEQA guidelines support projects that lower the carbon footprint of new development, and encourage programmatic mitigation strategies that may include reliance on adopted regional blueprint plans, CAPs and general plans that meet regional and local GHG emissions targets and that have also undergone CEQA review. The County of Riverside will implement the reduction measures for new development during the CEQA review, through the use of a Riverside County GHG Screening Table document based upon the CAP. The screening table will provide a menu of reduction options. If a project can obtain 100 points from the screening table, the mitigated project will implement pertinent reduction measures such that it meets the reduction goals of the CAP and a less than significant finding can be made for the proj*ect."

In order to evaluate consistency with the CAP, the County of Riverside provides Screening Tables to aid in measuring the reduction of GHG emissions attributable to certain design and construction measures incorporated into development projects. The CAP contains a menu of 47 overall measures potentially applicable to discretionary development that include energy conservation, water use reduction, increased residential density or mixed uses, transportation management and solid waste recycling. Individual sub-measures are assigned a point value within the overall screening table of GHG implementation measures. The point values are adjusted according to the intensity of action items with modest adoption/installation (those that reduce GHG emissions by modest amounts) worth the least number of points and greatly enhanced adoption/installation worth the most. Projects that garner at least 100 points (equivalent to an approximate 15% reduction in GHG emissions) are determined to be consistent with the reduction quantities anticipated in the County's GHG Technical Report, and consequently would be consistent with the CAP. As such, projects that achieve a total of 100 points or more do not require quantification of project specific GHG emissions after the incorporation of all of the measures required to meet the 100-point score within the CAP and, consistent with CEQA Guidelines, such projects are considered to have a less than significant individual and cumulative impact on GHG emissions. (Urban Crossroads, Inc., 2016c, p. 26)

4.7.4 IMPACT ANALYSIS

Threshold a) Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

The Project proposes the construction and operation of two high cube warehouse buildings. Although the future building users are not yet known, high cube warehouse buildings typically accommodate users that are part of the Southern California supply chain (goods movement network), which facilitates the efficient movement of goods from arrival points in the U.S. (such as the ports of LA/Long Beach) to end consumers. Without the efficient movement of goods from ports of entry, to warehouses (such as the proposed Project) where sorting and packing occur, and then to stores and end consumers, increased levels of GHG emissions have the potential to occur from inefficiencies in the movement system (longer vehicular trips and more frequent trips to move goods from their port of entry to end-consumers). Nonetheless, assuming that every vehicle trip generated by the Project would be a "new" trip (meaning that the vehicle trip is not already on the road moving goods between other facilities in the supply chain (and which may be occurring less efficiently that would occur under the proposed Project)), the Project would add GHG emissions to the Earth's atmosphere.

The Riverside County CAP specifies a two-step approach in quantifying GHG emissions. First, a screening threshold of 3,000 MTCO2e per year is used to determine if additional analysis is required. Projects that would produce GHG emissions the exceed 3,000 MTCO2e per year are required to either achieve a minimum 100 points per the Screening Tables set forth in the CAP, or achieve a minimum 25 percent reduction of GHG emissions from a 2011-year level of efficiency compared to the mitigated Project buildout year. For projects that cannot attain 100 points, the CAP indicates that additional analysis would be required.

Based on the construction and operational details of the Project described in EIR Section 3.0, *Project Description*, the Project would emit approximately 2,030.09 $MTCO_{2e}$ per year from construction, area, energy, waste, and water usage. In addition, the Project has the potential to result in an additional 19,814.65 $MTCO_{2e}$ per year from mobile sources if the assumption is made that all of the vehicle trips to and from the Project are "new" trips resulting from the development of the Project. As such, as shown on Table 4.7-5, *Project Greenhouse Gas Emissions*, the Project has the potential to generate a total of approximately 24,617.57 $MTCO_{2e}$ per year. Although the emission of 24,617.57 $MTCO_{2e}$ per year from a single development project would not change the global climate, the Project's emissions would participate in the potential for climate change by their incremental contribution combined with the cumulative increase of all other sources of GHGs worldwide, which when taken together may have an effect on global climate change. (Urban Crossroads, Inc., 2016c, p. 35) Because 24,617.57 $MTCO_{2e}$ per year would exceed the CAP's initial screening threshold of 3,000 MTCO2e, the Project's level of GHG emissions represent a cumulatively-considerable impact requiring mitigation.

Table 4.7-5 Project Greenhouse Gas Emissions

Emission Source	Emissions (metric tons per year)			
	CO_2	CH_4	N_2O	Total CO_2E
Annual construction-related emissions amortized over 30 years	99.19	0.01	--	99.50
Area	0.07	1.90E-04	0	0.07
Energy	996.87	0.05	0.01	1001.78
Mobile Sources (Trucks)	18,127.30	0.12	0	18129.84
Mobile Sources (Passenger Cars)	1683.5	0.06	0	1684.81
Offroad Equipment	333.07	0.1	0	335.21
Waste	240.24	14.2	0	538.40
Water Usage	43.12	0.42	0.01	55.13
Total CO_2E (Revised Project)	**21,844.74**			
Total CO_2E (From GHG Study)	**24,617.57**			
Variance	**-2,772.83**			

Source: CalEEMod model output. See Appendix G of *Technical Appendix F* for detailed model outputs.
Note: Totals obtained from CalEEMod and may not total 100% due to rounding.
Source: (Urban Crossroads, Inc. , 2017a)

Threshold b) Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The County of Riverside's CAP was designed reduce GHG emissions at the local level. Because the Project would emit 24,617.57 MTCO2e per year, which would exceed the CAP's initial screening threshold of 3,000 MTCO2e, the Project's level of GHG emissions represent a cumulatively-considerable impact requiring mitigation.

The Project would comply with a number of regulations that would further reduce GHG emissions, including the following regulations that are particularly applicable to the Project and that would assist in the reduction of GHG emissions.

- Title 24 California Code of Regulations (California Building Standards Code) and Title 20 California Code of Regulations (Appliance Energy Efficiency Standards). Establishes energy efficiency requirements for new (and altered) buildings and appliances. Construction of the Project is required to comply with these regulations.

- California Water Conservation in Landscaping Act of 2006 (AB1881). Requires local agencies to adopt the Department of Water Resources updated Water Efficient Landscape Ordinance or equivalent to ensure efficient landscapes in new development and reduced water waste in existing landscapes by January 1, 2010. The Project is required to comply with the County of Riverside's adopted water efficient landscape requirements and would therefore be consistent with the requirements of AB1881.

- Renewable Portfolio Standards (SB 1078). Requires electric corporations to increase the amount of energy obtained from eligible renewable energy resources to 20 percent by 2010 and 33 percent by 2020. Energy directly or indirectly supplied to the Project by electric corporations would thus comply with SB 1078.

There are no other plans, policies, or regulations that have been adopted for the purpose of reducing the emissions of GHGs that are applicable to the proposed Project.

4.7.5 CUMULATIVE IMPACT ANALYSIS

GCC occurs as the result of global emissions of GHGs. An individual project such as the proposed Project does not have the potential to result in direct and significant GCC-related effects in the absence of cumulative sources of GHGs. The CEQA Guidelines also emphasize that the effects of GHG emissions are cumulative, and should be analyzed in the context of CEQA's requirements for cumulative impacts analysis (See CEQA Guidelines §15130[f]).

Accordingly, the Project-specific impact analysis provided in Subsection 4.7.4 reflects a cumulative impact analysis of the Project's GHG emissions, and concludes that the proposed would emit 24,617.57 $MTCO_{2e}$ per year, which would exceed the CAP's initial screening threshold of 3,000 MTCO2e. Thus, the Project's level of GHG emissions represent a cumulatively-considerable impact requiring mitigation.

4.7.6 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold (a): Cumulatively Considerable Significant Impact. At Project buildout, the Project's total annual GHG emissions are calculated to be approximately 24,617.57 MTCO2e per year, which exceeds the Riverside County CAP's annual GHG emissions threshold of 3,000 MTCO2e. Thus, Project would result in cumulatively considerable impacts.

Threshold (b): Cumulatively Considerable Significant Impact. At Project buildout, the Project's total annual GHG emissions are calculated to be approximately 24,617.57 MTCO2e per year, which exceeds the Riverside County CAP's annual GHG emissions threshold of 3,000 MTCO2e. Thus, Project would result in cumulatively considerable impacts.

4.7.7 MITIGATION

Applicable County Regulations and Design Requirements

The following are applicable regulations and design requirements to which the Project is required to comply. Although these regulations and requirements technically do not meet CEQA's definition for mitigation, they are listed below for information purposes.

- The Project's construction activities are required to comply with Title 24 California Code of Regulations (California Building Standards Code) and Title 20 California Code of Regulations

(Appliance Energy Efficiency Standards). These regulations establish energy efficiency requirements for new (and altered) buildings and appliances.

- The Project is required to comply with Riverside County Ordinance No. 859, which is known as the Water Efficient Landscape Requirements Ordinance. Ordinance No. 859 mandates requirements for ensuring efficient landscapes in new development and reduced water waste in existing landscapes.

Mitigation

MM 4.7-1 Prior to issuance of a building permit, the Project Applicant shall provide documentation to the County of Riverside Building Department demonstrating that the improvements and/or buildings subject to each building permit application include the following measures from the County of Riverside Climate Action Plan (December 2015) Greenhouse Gas Emissions Screening Tables (Appendix F to the Climate Action Plan), as needed to achieve a minimum of 100 points:

a. E5.A.1: Enhanced Insulation (rigid wall insulation R-13, roof/attic R-38) – 18 points
b. E5.A.2: Enhanced Window Insulation (15%>Title 24) – 8 points
c. E5.B.1: Enhanced Duct Insulation (R-8) – 10 points
d. E5.B.2: Improved Efficiency HVAC (EER 14/65% AFUE or 8 HSPF) – 7 points
e. E5.B.4: High Efficiency Water Heater (0.72 Energy Factor) – 16 points
f. E5.B.5: All peripheral rooms having at least one window or skylight – 1 point
g. E5.B.6: Very High Efficiency Lights (100% of in-unit fixtures are high efficacy) – 14 points
h. E5.B.7: Star Commercial Refrigerator (new) – 4 points
i. E5.C.1: North/south alignment of building such that the orientation optimizes conditions for natural heating, cooling, and lighting – 6 points
j. W1.C.1: Eliminate turf and only drought tolerant plants – 4 points
k. W1.D.2: Water efficient toilets/urinals (1.5 gpm) – 3 points
l. W.1.D.3: Water efficient faucets (1.28 gpm) – 3 points
m. T1.A.2: Car/vanpool program with preferred parking – 2 points
n. T4.A.1: Larger parking spaces to accommodate ride-sharing vans – 1 point
o. SW2.B.1: Recycle 20% of debris during construction – 6 points

Alternatively, the Project Applicant may demonstrate that other Implementation Measures from Appendix F of the County's CAP have been incorporated into the building permit application and/or plans to achieve the required minimum of 100 points.

4.7.8 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Thresholds (a) and (b): Less-than-Significant with Mitigation Incorporated. The specific CAP measures specified by Mitigation Measure MM 4.7-1 would achieve the required 100 points, and all

measures listed are feasible. In any case, compliance with the CAP requirements to achieve 100 points would be required prior to issuance of any building permits. Because the Project would be fully compliant with the County's CAP with implementation of the required mitigation, cumulatively-considerable impacts due to GHG emissions would be reduced to below a level of significance.

4.8 HAZARDS AND HAZARDOUS MATERIALS

As discussed in Section 3.0, *Project Description*, the proposed Project involves the development of two properties located south of Oleander Avenue and both east and west of Ellsworth Street totaling approximately 58.6 acres. The Building D Site is located on approximately 37.1 acres east of Ellsworth Street, and the Building E Site is located on approximately 21.5 acres west of Ellsworth Street. Both properties are collectively referred to as the "Project site." For purposes of evaluation herein, the two properties are referred to individually as the "Building D Site" and the "Building E Site."

The analysis in this Subsection is based in part on two site-specific environmental site assessments. The environmental site assessment prepared for the Building D Site is titled, "Decker Assemblage Phase I Environmental Site Assessment Unincorporated Riverside County, California" prepared by Kennedy/Jenks Consultants (hereafter Kennedy/Jenks), dated August 18, 2014 and appended to this EIR as *Technical Appendix G1* (Kennedy/Jenks, 2014). The environmental site assessment prepared for the Building E Site is titled, "Decker II Assemblage Phase I Environmental Site Assessment Unincorporated Riverside County, California" prepared by Kennedy/Jenks, dated January 29, 2015 and appended to this EIR as *Technical Appendix G2* (Kennedy/Jenks, 2015). Please note that *Appendix G2* was prepared prior to the Project Applicant's decision to reduce the size of the Building E Site to its current configuration; therefore, the report covers additional acreage (west of the Building E Site) that is no longer in the Project site boundary and is not applicable to the discussion herein of potential on-site impacts. These and all other reference sources used in this Subsection are listed in EIR Section 7.0, *References*.

4.8.1 EXISTING CONDITIONS

A. Definition of Toxic Substances and Hazardous Waste

For the purposes of this EIR, the term "toxic substance" is defined as a substance which, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may present an unreasonable risk of injury to human health or the environment. Toxic substances include chemical, biological, flammable, explosive, and radioactive substances.

"Hazardous material" is defined as a substance which, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may: 1) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, disposed of, or otherwise mismanaged; or 2) cause or contribute to an increase in mortality or an increase in irreversible or incapacitating illness. Hazardous waste is defined in the California Code of Regulations, Title 22, § 66261.3. The defining characteristics of hazardous waste are: Ignitability (oxidizers, compressed gases, and extremely flammable liquids and solids), Corrosivity (strong acids and bases), Reactivity (explosives or generates toxic fumes when exposed to air or water), and Toxicity (materials listed by the United States Environmental Protection Agency (USEPA) as capable of inducing systemic damage to humans or animals). Certain wastes are called "Listed Wastes" and are found in the California Code of Regulations, Title 22, §§ 66261.30 through 66261.35. Wastes appear on the lists because of their

known hazardous nature or because the processes that generate them are known to produce hazardous wastes (which are often complex mixtures).

B. Historical Use of the Project Site

Kennedy/Jenks conducted a review of various sources of information to determine the historical use of the Building D Site and the Building E Site, including review of historical aerial photography, Sanborn Fire Insurance Maps, City Directories, Environmental Data Resources, Inc. (EDR) Property Tax Reports, EDR Environmental Liens Search Reports, and EDR Building Permit Reports.

Building D Site

Through review of the various sources of information to determine the historical use of the Building D Site, Kennedy/Jenks determined that the Building D Site was undeveloped land from the 1930s into the late 1960s. By the late 1970s, grading activities are evident in the southwest portion of the Building D Site and the remainder of the property remained undeveloped. By the late 1980s, little change is evident in the photographs, with the exception of structures in the southwest corner of the Building D Site. By the early 1990s, the existing off-site water tank located to the west of the Building D Site is visible in the aerial photographs. Historical aerial photography between 2005 and 2009 indicate that the southwest portion of the Building D Site was used for vehicle and equipment storage. (Kennedy/Jenks, 2014, pp. 4-1 through 4-2) Under existing conditions, the Building D Site contains a mobile home connected to an on-site septic system. Additionally, a concrete pad that is used for the storage of construction equipment is present on the Building D Site. Historical aerial photographs are provided in Appendix D of *Technical Appendix G1*.

Building E Site

Through review of the various sources of information to determine the historical use of the Building E Site, Kennedy/Jenks determined that the Building E Site was undeveloped land from the 1930s and into the late 1960s. Dirt access roads in and around the Building E Site first appear in aerial photographs in the early 1950s and are more developed in the late 1980s. Between the 1990s and 2012 the Building E Site is visible in the aerial photographs in its current configuration as vacant and undeveloped land. As with the Building D Site, the existing off-site water tank is visible in the early 1990s aerial photographs. Between 2006 and 2009, light grading activities are evident in the northern portion of the Building E Site. (Kennedy/Jenks, 2015, pp. 4-1 through 4-2)

C. Agency Records Review and Government Database Review

Kennedy/Jenks reviewed available environmental reports, state and local agency records, and appropriate permits in an effort to identify reported potential environmental issues that could be associated with the Building D Site and the Building E Site. In addition, a review of federal, state, and tribunal databases was conducted to identify potential Recognized Environmental Conditions (RECs), Historical Recognized Environmental Conditions (HRECs), Controlled Recognized Environmental Conditions (CRECs), or Notable Findings (NFs). The review included an environmental database

search for the surrounding area (1.0-mile radius). Information from these various databases is included in the EDR Radius Map Report with GeoCheck EDR Report included as Appendix C of *Technical Appendix G1* and Appendix B of *Technical Appendix G2*.

1. Building D Site

The agency records review and government database review determined that the Building D Site was not listed on any of the searched governmental databases included in the EDR report and no RECs, HRECs or CRECs are associated with the Building D Site. (Kennedy/Jenks, 2014, pp. 3-1 through 3-3 and p. 6-1)

Building E Site

The agency records review and government database review determined that the Building E Site was not listed on any of the searched governmental databases included in the EDR report and no RECs, HRECs or CRECs are associated with the Building E Site. (Kennedy/Jenks, 2015, pp. 3-1 through 3-3 and p. 6-1)

Properties within a One-Mile Radius of the Project Site

Properties within a one-mile radius of the Building D Site that were listed in the EDR Report include Bell Grain and Milling located at 17971 Highway 215 which is listed in the California Leaking Underground Storage Tank (LUST) and Cortese databases. According to the LUST database, Bell Grain and Milling received case closure in 1990 for reported gasoline impacts to soil only. Properties within a one-mile radius of both the Building D Site and the Building E Site include Temtex Products, Inc. located at 23560 Old Oleander Avenue, listed in the Hist UST database for operating a 2,000 fuel underground storage tank (UST). March Air Reserve Base (MARB) is listed in five environmental databases (National Priorities List (NPL), California EnviroStor Database (EnviroStor), Department of Defense (DoD), Record of Decision (ROD), and Formerly Used Defense Sites (FUDS)). According to online environmental records reviewed by Kennedy/Jenks for MARB, the Project site is located upgradient to MARB and is located approximately 0.50-mile south of the MARB. To date, no chemical impacts originating from MARB have been identified at the Project site. In summary, none of the hazardous materials listings for properties within one-mile of the Building D Site and the Building E Site are substances that have resulted in a substantial hazard at the Project site. Based on Kennedy/Jenks review of the information in the EDR Database Report for all of the surrounding sites having listings, no RECs, CRECs, HRECs, or NFs were noted. (Kennedy/Jenks, 2014, p. 3-3) (Kennedy/Jenks, 2015, p. 3-3) Refer to the EDR Radius Map Report with GeoCheck EDR Report included as Appendix C of *Technical Appendix G1* and Appendix B of *Technical Appendix G2* for a detailed summary of the EDR Database Report.

D. *Interviews and Property Reconnaissance*

1. *Building D Site*

Kennedy/Jenks conducted phone interviews in August 2014 with owners of the subject parcels on the Building D Site and on August 10, 2014, Kennedy/Jenks performed subject property reconnaissance on the Building D Site. Visual observations noted by Kennedy/Jenks during the reconnaissance are included in the site-specific Phase I Environmental Site Assessment (ESA). (*Technical Appendix G1*). Based on interviews and property reconnaissance, Kennedy/Jenks determined that the existing residential mobile home located in the southwest portion of the Building D Site is connected to an on-site septic system. A concrete pad is located east of the mobile home and is used for vehicle equipment and storage. Kennedy/Jenks also observed discarded debris along the western perimeter of the property, along Ellsworth Street. Types of debris included empty 5-gallon buckets with oily residue, small stockpiles of dirt, small mounds of asphalt, piles of concrete, household trash, and tires. Minor trash and debris are present on the remainder of the Building D Site. (Kennedy/Jenks, 2014 pp. 7-1 through 7-4)

Kennedy/Jenks determined that because the mobile home was placed on the property in the late 1980s, asbestos-containing materials (ACMs) and lead based paint (LBP) are not likely present in the building materials of the structure because those materials were not used in the 1980s. Also, no electrical transformers or other polychlorinated biphenyls (PCBs) were observed by Kennedy/Jenks on the Building D Site. Based on the location of the Building D Site, radon levels reported by the State of California in the zip code in which the Building D Site is located are reported to be below the USEPA action level. In summary, Kennedy/Jenks determined that no historical materials of concern occur on the Building D Site. (Kennedy/Jenks, 2014, p. 8-1)

2. *Building E Site*

Kennedy/Jenks conducted phone interviews in January 2015 with owners and property managers of the Building E Site. On December 30, 2014, Kennedy/Jenks performed property reconnaissance on the Building E Site. Visual observations noted by Kennedy/Jenks during the reconnaissance are included in the site-specific Phase I ESA (*Technical Appendix G2*). Based on the interviews and reconnaissance, Kennedy/Jenks determined that the Building E Site is comprised of undeveloped land. Kennedy/Jenks observed a parked recreational vehicle on the northeast portion of the Building E Site, and one pole-mounted transformer isolated at or just outside the southern perimeter of the Building E Site. (Kennedy/Jenks, 2015, pp. 7-1 through 7-4)

No permanent structures are located on the Building E Site; therefore, no ACM or LDP are present on the Building E Site. No obvious visual evidence of leaking associated with the one pole mounted transformer was observed by Kennedy/Jenks during their reconnaissance conducted on December 30, 2014 and there are no documented or observed releases of PCBs on the Building E Site. Similar to the Building D Site, based on the location of the Building E Site, radon levels reported by the State of California in the zip code in which the Building E Site is located are reported to be below the USEPA

action level. In summary, Kennedy/Jenks determined that no historical materials of concern occur on the Building E Site. (Kennedy/Jenks, 2015, p. 8-1)

E. Airport Hazards

The Project site is located approximately 1.1 mile west of the nearest runway at the MARB. Because the Project site is located within the influence area and Compatibility Zone C2 of MARB, development on the property is subject to the MARB Airport Land Use Compatibility Plan (ALUCP). According to the MARB ALUCP Table MA-2, *Base Compatibility Criteria*, within Compatibility Zone C2, highly noise-sensitive outdoor residential uses and hazards to flight are prohibited. Also, airspace review is required for objects greater than 70 feet tall, and MARB must be notified of any land use having an electromagnetic radiation component to assess whether a potential conflict with Air Base radio communications could result. Also, Compatibility Zone C2 is identified as a flight zone corridor (meaning a designated path in the region where planes fly overhead). Within this compatibility zone, the ALUCP indicates that the maximum number of persons per acre should not exceed an average of 200, or a maximum of 500 persons on any given acre. The ALUCP also specifies certain review, notification, and disclosure requirements for new land uses within Compatibility Zone C2. (RCALUC, 2014) Based on the Project site's location within the MARB ALUCP, ALUC review of the Project as proposed on the Building D Site and the Building E Site is required.

F. Hazardous Fire Area

According to the Moreno Valley Area Plan (MVAP) and Riverside County GIS, the Building D Site and Building E Site are not located in an area that is susceptible to wildfire hazards (RCIT, 2015) (Riverside County, 2003b, Figure 11). The Building D Site and the Building E Site and surrounding areas contain flat and gently sloping topographic relief and a paucity of flammable vegetation, due largely to the presence of development and/or routine weed abatement to preclude fire hazards. (Google Earth Pro, 2015) Furthermore, the nearest wildland region where land is substantially undeveloped and contains flammable vegetation is located approximately 4.2 miles to the southwest and is separated by intervening development.

G. Applicable Environmental Regulations

1. Federal Regulations – CERCLA and SARA

The USEPA is responsible for enforcing federal regulations that affect public health or the environment. The primary federal laws and regulations related to hazardous materials include: the Resource Conservation and Recovery Act (RCRA); the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA); and the Superfund Act and Reauthorization Act (SARA). Federal regulations pertaining to hazardous materials and wastes are contained in the Code of Federal Regulations (40 CFR).

RCRA, which was enacted in 1976, is the principal federal law that regulates the generation, management, and transportation of hazardous materials and hazardous wastes. Other specific areas

covered by the amendment include regulation of carcinogens; listing of hazardous wastes; permitting for hazardous waste facilities; and leaking underground storage tanks. The USEPA maintains lists of the facilities that generate or transport large quantities of hazardous materials.

CERCLA, enacted in 1980, is a federal law enacted to address abandoned hazardous substance facilities. This act is also referred to as the Superfund Act, and the sites listed under it are referred to as Superfund sites.

In 1986, Congress passed the SARA. The SARA required Superfund actions to consider the standards and requirements found in other State and federal environmental laws and regulations; provided new enforcement authorities and settlement tools; increased State involvement in every phase of the Superfund program; and increased the focus on human health problems posed by hazardous waste sites. SARA also required EPA to revise the Hazard Ranking System (HRS) to ensure that it accurately assessed the relative degree of risk to human health and the environment posed by uncontrolled hazardous waste sites that may be placed on the NPL.

2. Federal Regulations - OSHA

Enacted in 1970, this federal law, like its namesake enforcement agency, OSHA (the Occupational Safety and Health Administration), governs the occupational health and safety of the private sector and the federal government. Codified under United States Code (USC) Title 29, Chapter 15, the OSH Act ensures that employers provide employees with an environment free from "recognized hazards," such as exposure to toxic chemicals, excessive noise, mechanical dangers, heat or cold stress, and unsanitary conditions. Section 5 of the OSH Act contains a "general duty clause" that requires employers to: maintain conditions or adopt practices reasonably necessary and appropriate to protect workers on the job; be familiar with and comply with standards applicable to their establishments; and, ensure that employees have and use personal protective equipment when required for safety and health. OSHA may act under the general duty clause when four criteria are met: First, there must be a hazard. Second, the hazard must be a recognized hazard (e.g., the employer knew or should have known about the hazard, the hazard is obvious, or the hazard is a recognized one within the industry). Third, the hazard must be sufficient to cause, or be likely to cause, serious harm or death. And, lastly, the hazard must be correctable (OSHA recognizes not all hazards are correctable). (Riverside County, 2015c, pp. 4.13-55)

3. State Regulations - Call/OSHA and the California State Plan

Under an agreement with OSHA, since 1973 California has operated an occupational safety and health program in accordance with Section 18 of the federal OSH Act of 1970. The State of California's Department of Industrial Relations administers the California Occupational Safety and Health Program, commonly referred to as Cal/OSHA. The State of California's Division of Occupational Safety and Health (DOSH) is the principal agency that oversees plan enforcement and consultation. In addition, the California State program has an independent Standards Board responsible for promulgating State safety and health standards, and reviewing variances. It also has an Appeals Board

to adjudicate contested citations, and the Division of Labor Standards Enforcement to investigate complaints of discriminatory retaliation in the workplace. (Riverside County, 2015c, pp. 4.13-55) The Cal/OSHA enforcement unit conducts inspections of California workplaces in response to a report of an industrial accident, a complaint about an occupational safety and health hazard, or as part of an inspection program targeting industries with high rates of occupational hazards, fatalities, injuries, or illnesses. (Riverside County, 2015c, pp. 4.13-55)

The Hazardous Materials Business Plan (HMBP) program was established in 1986. A HMBEP is a written set of procedures and information created to help minimize the effect and extent of a release or threatened release of a hazardous material. The purpose of the HMBP program is to prevent or minimize the damage to public health and safety and the environment, from a release or threatened release of hazardous materials. It also satisfies community right-to-know laws. This is accomplished by requiring businesses that handle hazardous materials in quantities equal to or greater than greater than 55 gallons of a liquid, 500 pounds of a solid, or 200 cubic feet of compressed gas, or extremely hazardous substances above the threshold planning quantity to prepare a hazardous materials plan (40 CFR, Part 355, Appendix A). (Cal OES, 2015)

4. State Regulations - California Code of Regulations (CCR), Titles 22 and 26

The California Department of Toxic Substances Control (DTSC) and the Regional Water Quality Control Boards (RWQCBs) are the primary state agencies charged with regulating hazardous materials in California. The RWQCBs are authorized by the State Water Resources Control Board (SWRCB) to enforce the provisions of the Porter-Cologne Water Quality Control Act of 1969. The Porter-Cologne Water Quality Control Act gives the RWQCBs authority to require water quality investigations and remediation, if necessary, if groundwater or surface water of the State is threatened. The DTSC is authorized by the USEPA to regulate the management of hazardous waste.

California's hazardous materials laws incorporate federal standards but are often more stringent than comparable federal laws. The primary laws regulating hazardous materials in California include the California Hazardous Waste Control Law (HWCL), the state equivalent of RCRA, and the Carpenter-Presley-Tanner Hazardous Substance Account Act (HSAA), the state equivalent of CERCLA. State hazardous materials and waste laws are contained in the California Health and Safety Code and the California Water Code, and these regulations are contained in the California Code of Regulations, Titles 22 and 26.

5. Local Regulations – Hazardous Materials

Federal and state hazardous materials regulations require all businesses that handle more than a specified amount of hazardous materials or extremely hazardous materials to obtain a hazardous materials permit and submit a business plan to its local Certified Unified Program Agency (CUPA). The CUPA also ensures local compliance with all applicable hazardous materials regulations. The California Environmental Protection Agency (CAL EPA) designated the County of Riverside Department of Environmental Health (DEH) as the CUPA for Riverside County. The Riverside

County DEH Hazardous Materials Branch is responsible for overseeing the six hazardous materials programs in the County. Riverside County Ordinance No. 615 "Hazardous Waste Generation, Storage, Handling and Disposal" was promulgated for the purpose of monitoring establishments where hazardous waste is generated, stored, handled, disposed, treated or recycled and to regulate the issuance of permits and the activities of establishments where hazardous waste is generated. The County DEH Branch is responsible for inspecting facilities that handle hazardous materials, generate hazardous waste, treat hazardous waste, own/operate underground storage tanks, own/operate aboveground petroleum storage tanks, or handle other materials subject to the California Accidental Release Program. In addition, the Branch maintains an emergency response team that responds to hazardous materials and other environmental health emergencies 24 hours a day, 7 days a week. (County of Riverside DEH, 2015)

6. Local Regulations – Abatement of Hazardous Vegetation

Requirements for fire hazard reduction around improved parcels (i.e., those with structures) are set forth in Riverside County Ordinance No. 787. A minimum 30-foot clearance is required around all structures; it may be extended up to 100 feet in areas with severe fire hazards. Under Riverside County Ordinance No. 695, the Riverside County Fire Department (RCFD) distributes hazard abatement notices that require property owners to reduce fire fuels (e.g., flammable grass, brush, etc.) around their property. On unimproved parcels, the property owner is required to disc or mow 100 feet around the property perimeter. This ordinance, among other things, also allows the Fire Chief or designee entry onto any real property to inspect when there is reasonable cause that hazardous vegetation exists. (Riverside County, 2015c, pp. 4.13-65 and -66)

4.8.2 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to hazards and hazardous materials if the Project or any Project-related component would:

Hazards and Hazardous Materials

a) *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;*

b) *Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;*

c) *Impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan;*

d) *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;*

e) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.

Airports

a) Result in an inconsistency with an Airport Master Plan;

b) Require review by the Airport Land Use Commission;

c) For a project located within 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 result in a safety hazard for people residing or working in the project area;

d) For a project within the vicinity of a private airstrip, or heliport, would the project result in a safety hazard for people residing or working in the project area.

Hazardous Fire Area

a) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

4.8.3 IMPACT ANALYSIS

Hazards and Hazardous Materials	
Threshold a)	***Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?***
Threshold b)	***Would the Project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?***

A. Impact Analysis for Existing Site Conditions

1. Building D Site

As discussed in Subsection 4.8.1, a residential mobile home located in the southwest portion of the Building E Site is connected to an onsite septic system and a concrete pad used for vehicle equipment and storage is located east of the residential mobile home. As discussed in Subsection 4.8.1, given the mobile home appears to have been set on the Building D Site in the late 1980s, ACM and LDP are not likely to be present within the structure. The existing mobile home, cement pad, and onsite existing septic system would be required to be removed, handled, and disposed in accordance with all applicable local and State regulations. In addition, if present at the time of construction activities, the discarded debris along the western perimeter of the property, along Ellsworth Street, would be removed, handled, and disposed of in accordance with local and State regulations. There is no evidence that the Building D Site was ever used for any purpose that would have resulted in soil contamination and no contaminated soils are present on the property. With mandatory compliance with applicable hazardous materials regulations, implementation of the Project as proposed on the Building D Site would not

expose the public or environment to significant hazardous materials associated with the removal and disposal of onsite structures and discarded debris.

2. Building E Site

As discussed in Subsection 4.8.1, under existing conditions, the Building E Site is vacant and undeveloped and contains no structures. Types of debris present on the Building E Site during the site-specific Phase I ESA included small quantities of empty plastic containers with oily residue, small stockpiles of asphalt, piles of concrete, household trash, wood, and tires. If present at the time of construction activities, the debris would be removed, handled, and disposed of in accordance with local and State regulations. There is no evidence that the Building E Site was ever used for any purpose that would have resulted in soil contamination and no contaminated soils are present on the property. With mandatory compliance with applicable hazardous materials regulations, implementation of the Project as proposed on the Building E Site would not expose the public or environment to significant hazardous materials associated with the debris present on the Building E Site under existing conditions.

B. Impact Analysis for Temporary Construction-Related Activities

Heavy equipment (e.g., dozers, excavators, tractors) would be operated during construction of the Project as proposed on the Building D Site and the Building E Site. This heavy equipment would likely be fueled by petroleum-based substances such as diesel fuel, gasoline, oil, and hydraulic fluid, which are considered hazardous if improperly stored or handled. In addition, materials such as paints, adhesives, solvents, and other substances typically used in building construction would be located on the Project site during construction. Improper use, storage, or transportation of hazardous materials can result in accidental releases or spills, potentially posing health risks to workers, the public, and the environment. This is a standard risk on all construction sites, and there would be no greater risk for improper handling, transportation, or spills associated with the proposed Project than would occur on any other similar construction site. As part of standard construction practices, the construction contractor(s) will have a spill prevention kit at the site.

During construction of the Project, rock blasting would occur on portions of the Project site. The rock blasting would utilize small, highly controlled explosive charges to fragment hard rocks into smaller, crushable pieces. The charges will be made up of ammonium nitrate/fuel oil (ANFO) which consists of 94 percent ammonium nitrate and 6 percent diesel fuel. Construction contractors would be required to comply with all applicable federal, state, and local laws and regulations regarding the transport, use, and storage of hazardous construction-related materials, including but not limited to the requirements imposed by the USEPA, DTSC, and the Santa Ana RWQCB. With mandatory compliance with applicable hazardous materials regulations, the construction activities associated with the Project as proposed on the Building D Site and the Building E Site would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials during the construction phase. Thus, impacts would be less than significant.

C. *Impact Analysis for Long-Term Operation of the Project*

The future building occupants that would occupy the Building D Site and the Building E Site are not known at this time. Future uses on the Project site are assumed to be high-cube dry goods warehousing as permitted by the County of Riverside's "Industrial Park (I-P)" zoning designation.

Based on the list of permitted activities that would be allowed in the County of Riverside's I-P zone, it is possible that hazardous materials could be used during the course of a future building occupant's daily operations. Federal and State Community-Right-to-Know laws allow the public access to information about the amounts and types of chemicals that may be used by businesses on the Building D Site and the Building E Site. Laws also are in place that require businesses to plan and prepare for possible chemical emergencies. Any business that occupies a building on the Building D Site or the Building E Site and that handles and/or stores substantial quantities of hazardous materials (as defined by Riverside County Ordinance or § 25500 of California Health and Safety Code, Division 20, Chapter 6.95) would be required to prepare and submit a HMBEP to the Riverside County Department of Environmental Health in order to register the business as a hazardous materials handler. Such businesses also are required to comply with California's Hazardous Materials Release Response Plans and Inventory Law, which require immediate reporting to Riverside County Fire Department and State Office of Emergency Services regarding any release or threatened release of a hazardous material, regardless of the amount handled by the business.

If businesses that use or store hazardous materials occupy the Building D Site or the Building E Site, the business owners and operators would be required to comply with all applicable federal, State, and local regulations to ensure the proper transport, use, or disposal of hazardous substances (as described above). With mandatory regulatory compliance, potential hazardous materials impacts associated with long-term operation of the Project as proposed on the Building D Site and the Building E Site is not expected to pose a significant hazard to the public or environment through the routine transport, use, or disposal of hazardous materials, nor would the Project as proposed on the Building D Site and the Building E Site increase the potential for accident operations which could result in the release of hazardous materials into the environment.

With mandatory regulatory compliance to federal, State, and local laws, potential hazardous materials impacts associated with long-term operation of the Project as proposed on the Building D Site and the Building E Site are regarded as less than significant and mitigation is not required.

Hazards and Hazardous Materials
Threshold c) Would the Project impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan?

The Building D Site and the Building E Site do not contain any emergency facilities nor do they serve as an emergency evacuation route. During construction and long-term operation, the proposed Project would be required to maintain adequate access for emergency vehicles. As part of the County's discretionary review process, the County reviewed the Project as proposed on the Building D Site and

the Building E Site to ensure appropriate emergency ingress and egress would be available to the Building D Site and the Building E Site and the proposed buildings, and determined that the Project as proposed on the Building D Site and the Building E Site would not substantially impede emergency response routes in the local area during either construction or operations. Accordingly, the Project as proposed on the Building D Site and the Building E Site would not impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan. Thus, no impact would occur and mitigation is not required.

Hazards and Hazardous Materials
Threshold d) Would the Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

The nearest existing school to the Project site is the Tomas Rivera Middle School, located approximately 1.2 miles southwest of the Project site (Google Earth Pro, 2015). Additionally, there are no schools planned within 0.25-mile of the Project site (RCIT, 2015). Accordingly, the Project has no potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Thus, no impact would occur and mitigation is not required.

Hazards and Hazardous Materials
Threshold e) Would the Project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

The Building D Site and the Building E Site are not listed on any hazardous materials sites lists compiled pursuant to Government Code Section 65962.5 (CalEPA, n.d.) (CalEPA, 2012) (DTSC, 2007) (SWRCB, n.d.) (SWRCB, 2015). Thus, no impact would occur.

Airports
Threshold a) Would the Project result in an inconsistency with an Airport Master Plan?

Threshold b) Would the Project require review by the Airport Land Use Commission?

Threshold c) For a project located within 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 result in a safety hazard for people residing or working in the project area?

As discussed in Subsection 4.8.1, the Building D Site and the Building E Site are located within the influence area of the MARB and are subject to the March Air Reserve Base/Inland Port Land Use

Compatibility Plan. The Project site is located within Compatibility Zone C2 of the ALUCP. According to March Air Reserve Base/Inland Port Land Use Compatibility Plan, Table MA-2, *Base Compatibility Criteria*, within Compatibility Zone C2, highly noise-sensitive outdoor residential uses and hazards to flight are prohibited. Also, children's schools are discouraged, airspace review is required for objects greater than 70 feet tall, and the MARB must be notified of any land use having an electromagnetic radiation component to assess whether a potential conflict with Air Base radio communications could result. Also, Compatibility Zone C2 is identified as a flight zone corridor (meaning a designated path in the region where planes fly overhead). Within this compatibility zone, the ALUCP indicates that the maximum number of persons per acre should not exceed an average of 200, or a maximum of 500 persons on any given acre. The ALUCP also specifies certain review, notification, and disclosure requirements for new land uses within Compatibility Zone C2

The Project as proposed on the Building D Site was subject to review by the Riverside County Airport Land Use Commission (ALUC) on May 11, 2017, which concluded that the Project is conditionally consistent with the March Air Reserve Base/Inland Port Land Use Compatibility Plan. A copy of the ALUC staff report that contains the conditions of approval imposed on the Project is included in the Project's Administrative Record for this EIR on file with the County of Riverside. The ALUC's conditions are listed as regulatory requirements applicable to the Project in EIR Subsection 4.8.6. With compliance to the ALUC conditions of approval, the Project is consistent with the ALUCP and would not create a hazard.

Airports

Threshold d) For a project within the vicinity of a private airstrip, or heliport, would the Project result in a safety hazard for people residing or working in the project area?

There are no known private airstrips located within the vicinity of the Building D Site or the Building E Site (Google Earth Pro, 2015). The Riverside County Regional Medical Center (RCRMC) located in Moreno Valley at 26520 Cactus Avenue has a helipad for emergency medical purposes. The proposed Project has no potential to interfere with operation of the helipad. As such, implementation of the Project as proposed on the Building D Site and the Building E Site would not expose people residing or working in the Project area to safety hazards associated with a private airstrip or heliport. Thus, no impact would occur.

Hazardous Fire Area

Threshold a) Would the Project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

According to the MVAP and Riverside County GIS, the Building D Site and Building E Site are not located in an area that is susceptible to wildfire hazards (RCIT, 2015) (Riverside County, 2003b, Figure 11). The Building D Site and the Building E Site and surrounding areas contain relatively little

topographic relief and a paucity of flammable vegetation, due largely to the presence of development and/or routine weed abatement to preclude fire hazards. (Google Earth Pro, 2015) Furthermore, the nearest wildland region where land is substantially undeveloped with flammable vegetation is located approximately 4.2 miles to the southwest and is separated by intervening development. The Project would not introduce hazards such as non-irrigated landscaping etc. Accordingly, the Project as proposed on the Building D Site and the Building E Site would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. No impact would occur.

4.8.4 CUMULATIVE IMPACT ANALYSIS

Hazards and Hazardous Materials

As discussed above under Hazards and Hazardous Materials Thresholds (a) and (b), implementation of the Project as proposed on the Building D Site and the Building E Site would involve high cube dry goods warehousing in conformance with the County's "Industrial Park (I-P)" zoning designation. Although the end users are not presently known, if businesses that use or store hazardous materials occupy the Building D Site and/or the Building E Site, the business owners and operators would be required to comply with all applicable federal, state, and local regulations to ensure the proper use, storage, and disposal of hazardous materials. Such uses also would be subject to additional review and permitting requirements by the County of Riverside DEH. Mandatory compliance with applicable hazardous materials regulations would preclude potential adverse impacts related to the routine transport and handling of hazardous materials and accident conditions involving hazardous materials. Similarly, any other developments in the area proposing the construction of uses for the potential for use, storage, or transport of hazardous materials also would be required to comply with the same federal, state, and local regulations as the Project, which would preclude potential adverse impacts related to hazardous materials. Because the Project and nearby cumulative development would not result in adverse impacts related to handling, transport, storage, and treatment of hazardous materials due to mandatory compliance with federal, state, and local regulations that require that minimum, adequate safety standards are met, there is no potential for a cumulative impact to occur related to hazardous materials, including under routine and accident conditions.

As discussed above under Hazards and Hazardous Materials Threshold (c), the Building D Site and the Building E Site do not contain any emergency facilities nor do they serve as an emergency evacuation route. Also, during construction and long-term operation, the proposed Project would be required to maintain adequate access for emergency vehicles. Thus, the Project would have no effect on emergency access and there is no potential for the Project as proposed on the Building D Site or the Building E Site to contribute to any cumulative impacts associated with emergency facilities or emergency evacuation routes.

As discussed above under Hazards and Hazardous Materials Threshold (d), the Building D Site and the Building E Site are not located within 0.25-mile of any existing or planned school; therefore, the Project has no potential to combine with other development projects to result in substantial hazardous materials-related impacts within 0.25-mile of the Project site.

As discussed above under Hazards and Hazardous Materials Threshold (e), the Building D Site and the Building E Site are not listed on any hazardous materials sites lists compiled pursuant to Government Code Section 65962.5. Because the Project site is not classified as a hazardous materials site, there is no potential for the Project to contribute to, or exacerbate, adverse environmental effects resulting from other hazardous materials sites in the Project vicinity.

Airports

As discussed above under Airports Threshold (a), (b), and (c), the Project is conditionally consistent with the March Air Reserve Base/Inland Port Land Use Compatibility Plan and implementation of the Project on the Building D Site and the Building E Site would not result in an airport-related safety hazard for people residing or working in the Project area. All development within the MARB airport influence area is required to be consistent with the March Air Reserve Base/Inland Port Land Use Compatibility Plan to avoid potential land use conflicts with the MARB and minimize potential safety hazards. All projects proposed in the MARB airport influence area are required to undergo a review by the ALUC and, the ALUC issues conditions on these projects to ensure that adverse impacts to the MARB's aircraft operations do not occur. The ALUC conducted a review of the Building D Project and the Building E Project and issued conditions of approval that are listed as regulatory requirements applicable to the Project in Subsection 4.8.6. Mandatory compliance with the ALUC's conditions will ensure that the Project and other development in proximity to MARB do not result in substantial, cumulative impacts related to air travel safety hazards or aircraft operations at MARB.

As discussed under Airports Threshold (d), there are no known private airstrips or heliports located within the vicinity of the Building D Site or the Building E Site. Thus, the Project has no potential to contribute to a cumulative impact to nearby private airstrips or heliports.

Hazardous Fire Area

The Building D Site and Building E Site are not located in an area that is susceptible to wildfire hazards and surrounding areas contain relatively little topographic relief and a paucity of flammable vegetation, due largely to the presence of development and/or routine weed abatement to preclude fire hazards. As such, The Project would not contribute to any cumulative impact.

4.8.5 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Hazards and Hazardous Materials

Thresholds (a) and (b) for the Building D Site and the Building E Site: Less-than-Significant Impact. During Project construction and operation, mandatory compliance to federal, state, and local regulations would ensure that the Project as proposed on the Building D Site and the Building E Site would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

Threshold (c) for the Building D Site and the Building E Site: No Impact. The Project would not impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan. No emergency facilities exist on the Project site, nor does the Project site serve as an emergency evacuation route.

Threshold (d) for the Building D Site and the Building E Site: No Impact. The Building D Site and the Building E Site are not located within one-quarter mile of any existing or planned school. Accordingly, the Project as proposed on the Building D Site and the Building E Site would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

Threshold (e) for the Building D Site and the Building E Site: No Impact. The Building D Site and the Building E site are not located on any list of hazardous materials compiled pursuant to Government Code Section 65962.5.

Airports

Threshold (a), (b), and (c) for the Building D Site and the Building E Site: Less-than-Significant Impact. Pursuant to mandatory compliance with Riverside County ALUC conditions of approval, the Project is consistent with the restrictions and requirements of the March Air Reserve Base/Inland Port Land Use Compatibility Plan. As such, the Project would not result in an airport safety hazard for people residing or working in the Project area.

Threshold (d) for the Building D Site and the Building E Site: No Impact. The Project would have no impact on private aviation facilities. There are no known private airstrips located within the vicinity of the Project site. The Project would have no potential to impact the helipad at the Riverside County Regional Medical Center.

Hazardous Fire Area

Threshold (a) for the Building D Site and the Building E Site: No Impact. The Project site is not located in a wildland fire hazard area. The Project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

4.8.6 MITIGATION

Applicable County Regulations and Design Requirements

The following are applicable regulations and design requirements imposed by the Riverside County ALUC on the proposed Project. Although these requirements technically do not meet CEQA's definition for mitigation, they are listed below to ensure Project compliance with the ALUC regulations and design requirements.

- Any outdoor lighting installed shall be hooded or shielded to prevent either the spillage of lumens or reflection into the sky. Outdoor lighting shall be downward facing.

- The following uses/activities are not included in the proposed Project and shall be prohibited at the site, in accordance with Note 1 on Table 4 of the Mead Valley Area Plan as noted below.

  - Any use which would direct a steady light of flashing light or red, white, green, or amber colors associated with airport operations toward an aircraft engaged in an initial straight climb following takeoff or toward an aircraft engaged in a straight final approach toward a landing at an airport, other than an FAA-approved navigational signal light or visual approach slope indicator.
  - Any use which would cause sunlight to be reflected towards an aircraft engaged in an initial straight climb following takeoff or towards an aircraft engaged in a straight final approach towards a landing at an airport.
  - Any use which would generate smoke or water vapor or which would attract large concentrations of birds, or which may otherwise affect safe air navigation within the area.
  - Any use which would generate electrical interference that may be detrimental to the operation of aircraft and/or aircraft instrumentation.

- The "Notice of Airport in Vicinity," included in the May 11, 2017 County of Riverside ALUC Staff Report, shall be given to all prospective purchasers of the property and tenants of the buildings, and shall be recorded as a deed notice.

- The proposed detention basins on the site (including water quality management basins) shall be designed so as to provide for a maximum 48-detention period following the conclusion of a storm event for the design storm (may be less, but not more), and to remain totally dry between rainfalls. Vegetation in and around the detention basins that would provide food or cover for bird species that would be incompatible with airport operations shall not be utilized in project landscaping. Trees shall be spaced so as to prevent large expanses of contiguous canopy, when mature.

- The following uses/activities are specifically prohibited: wastewater management facilities; trash transfer stations that are open on one or more sides; recycling centers containing putrescible wastes; and incinerators.

- March Air Reserve Base must be notified of any land use having an electromagnetic radiation component to assess whether a potential conflict with Air Base radio communications could result. Sources of electromagnetic radiation include radio wave transmission in conjunction with remote equipment inclusive of irrigation controllers, access gates, etc.

- The Federal Aviation Administration has conducted aeronautical study of each proposed building (Aeronautical Study Nos. 2017-AWP-2411-OE and 2017-AWP-2412-OE) and has determined that neither marking nor lighting of the proposed structures is necessary for aviation safety. However, if marking and/or lighting for aviation safety are accomplished on a voluntary basis, such marking and/or lighting (if any) shall be installed in accordance with FAA Advisory Circular 70/7460-1 L Change 1 and shall be maintained in accordance therewith for the life of the Project.

- The maximum height of the structure proposed through Plot Plan No. 25838 (Building D) shall not exceed a height of 55 feet above ground level and shall not exceed a maximum elevation at top point (including all roof-mounted appurtenances, if any) of 1,640 feet above mean sea level.

- The maximum height of the structure proposed through Plot Plan No. 25837 (Building E) shall not exceed 55 feet above ground level and shall not exceed a maximum elevation at top point (including all roof-mounted appurtenances, if any) of 1,673 feet above mean sea level.

- The maximum height and top point elevations specified above shall not be amended without further review by the Airport Land Use Commission and the Federal Aviation Administration; provided, however, that reduction in structure height or elevation shall not require further review by the Airport Land Use Commission.

- Temporary construction equipment such as cranes used during actual construction of Building D shall not exceed a height of 55 feet and a maximum elevation of 1,640 feet above mean sea level, unless separate notice is provided to the Federal Aviation Administration through the Form 7460-1 process.

- Temporary construction equipment such as cranes used during actual construction of Building E shall not exceed a height of 55 feet and a maximum elevation of 1,673 feet above mean sea level, unless separate notice is provided to the Federal Aviation Administration through the Form 7460-1 process.

- Within five (5) days after construction of each building reaches its greatest height, FAA Form 7460-2 (Part II), Notice of Actual Construction or Alteration, shall be completed by the Project proponent or his/her designee and e-filed with the Federal Aviation Administration. This requirement is also applicable in the event the Project is abandoned or a decision is made not to construct the applicable structure.

- The Federal Aviation Administration has conducted a aeronautical studies under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, Part 77 concerning Building D and Building E. The aeronautical studies revealed that the structures do not exceed obstruction standards and would not be met with a hazard to air navigation

provided the following condition is met. FAA Form 7460-2, Notice of Actual Construction or Alteration shall be e-filed any time the Project is abandoned or within 5 days after the construction reaches its greatest height (7460-2, Part 2).

Mitigation Measures

Impacts would be less than significant. Mitigation is not required.

4.9 HYDROLOGY AND WATER QUALITY

As discussed in Section 3.0, *Project Description*, the proposed Project involves the development of two properties located south of Oleander Avenue and both east and west of Ellsworth Street (also referred to herein as "Decker Road") totaling approximately 58.6 acres. The Building D Site is located on approximately 37.1 gross acres east of Ellsworth Street, and the Building E Site is located on approximately 21.5 gross acres west of Ellsworth Street. Both properties are collectively referred to as the "Project site." For purposes of evaluation herein, the two properties are referred to individually as the "Building D Site" and the "Building E Site."

The analysis in this subsection primarily relies on a memorandum prepared by David Evans and Associates, Inc., (hereafter DEA) titled "Knox Business Park, Buildings D & E, Hydrology & Water Quality Narrative," dated April 28, 2017 (DEA, 2017a). This memorandum with accompanying exhibits is provided as *Technical Appendix H* to this EIR.

The Riverside County Flood Control and Water Conservation District (RCFCWCD) is the agency responsible for the regional flood control system in the Project area. The RCFCWCD's Master Drainage Plans (MDPs) address the current and future drainage needs of a given community and the boundaries of the plans usually follows watershed limits. Area Drainage Plans (ADPs) are financing mechanisms used to offset taxpayer costs for proposed regional drainage facilities. According to the RCFCWCD, an Area Drainage Plan is essentially a Master Drainage Plan with additional language supporting costs and distribution of the fee within the Plan area. (RCFCWCD, 2015) The Project site is located within the Perris Valley MDP and the Perris Valley ADP (RCFCWCD, 2015, RCFCWCD MDP Index Map). Accordingly, flood control information for this subsection was obtained from the Perris Valley MDP and the Perris Valley ADP.

The Project site is located within the jurisdiction of the Santa Ana Regional Water Quality Control Board (RWQCB). Accordingly, water quality information for this subsection was obtained from the *Santa Ana RWQCB Water Quality Control Plan (Basin Plan)* for the Santa Ana River Basin (updated June 2011).

A bibliography of above-listed documents and all other references used in the subsection is provided in EIR Section 7.0, *References*.

4.9.1 EXISTING CONDITIONS

A. *Regional Hydrology*

The Project site is located in the San Jacinto and the San Jacinto Sub-Watershed of the greater Santa Ana River Watershed. The Santa Ana River Watershed drains a 2,650 square-mile area. The Santa Ana River drains the largest coastal system in Southern California and flows over 100 miles to a discharge point into the Pacific Ocean at the location of the City of Huntington Beach. The total length of the Santa Ana River and its tributaries is approximately 700 miles. (SAWPA, 2014b,

Section 3.0) The location of the Project site within the San Jacinto Watershed is depicted in Figure 4.9-1, *San Jacinto Watershed Map*.

B. Project Site Hydrology

1. Building D Site

Figure 4.9-2, *Existing Condition Hydrology Map – Plot Plans 25838/25837* illustrates the existing drainage pattern of the Building D Site under existing conditions. Under existing conditions, storm water from two off-site tributary areas traverse the Building D Site in a west-to-east direction as surface sheet flow. Surface runoff flows leave the Building D Site at its northeast corner (near Old Oleander Avenue) and its southeastern boundary, respectively.

A third off-site tributary is located southwest of the Building D Site; runoff from this off-site tributary area flows in a northeasterly direction and spills into Ellsworth Street and travels east – and south – of the Building D Site.

2. Building E Site

As shown on Figure 4.9-2, *Existing Condition Hydrology Map – Plot Plans 25838/25837*, the Building E Site receives storm water from two off-site tributary areas under existing conditions. Runoff from the largest off-site tributary area enters the Building E Site at the northwest corner of the site and the approximate mid-point of the site's western boundary, respectively, and travels across the site as surface sheet flow before spilling into Ellsworth Street at the site's northeast boundary. The second, smaller, off-site tributary that contributes storm water runoff to the Building E Site is located near the site's southwest boundary. Runoff flows from this off-site tributary travel across the site in a northeasterly direction as surface sheet flow before spilling into Ellsworth Street at the site's eastern boundary.

A third off-site tributary is located southwest of the Building E Site; runoff from this off-site tributary area travels north and east, along the Building E Site's southern boundary, before spilling into Ellsworth Street and continuing farther east.

C. Water Quality

The California Porter-Cologne Water Quality Control Act (Section 13000 ("Water Quality") *et seq.*, of the California Water Code), and the Federal Water Pollution Control Act Amendment of 1972 (also referred to as the Clean Water Act (CWA)) require that comprehensive water quality control plans be developed for all waters in the State of California. In order to accomplish this, the California State Water Resources Control Board divided the state into planning regions and the present system of nine Regional Water Quality Control Boards (RWQCBs). The Project site and vicinity is within the purview of the Santa Ana RWQCB. Therefore, the Santa Ana RWQCB's Santa Ana River Basin Water Quality Control Plan is the governing water quality plan for the region,

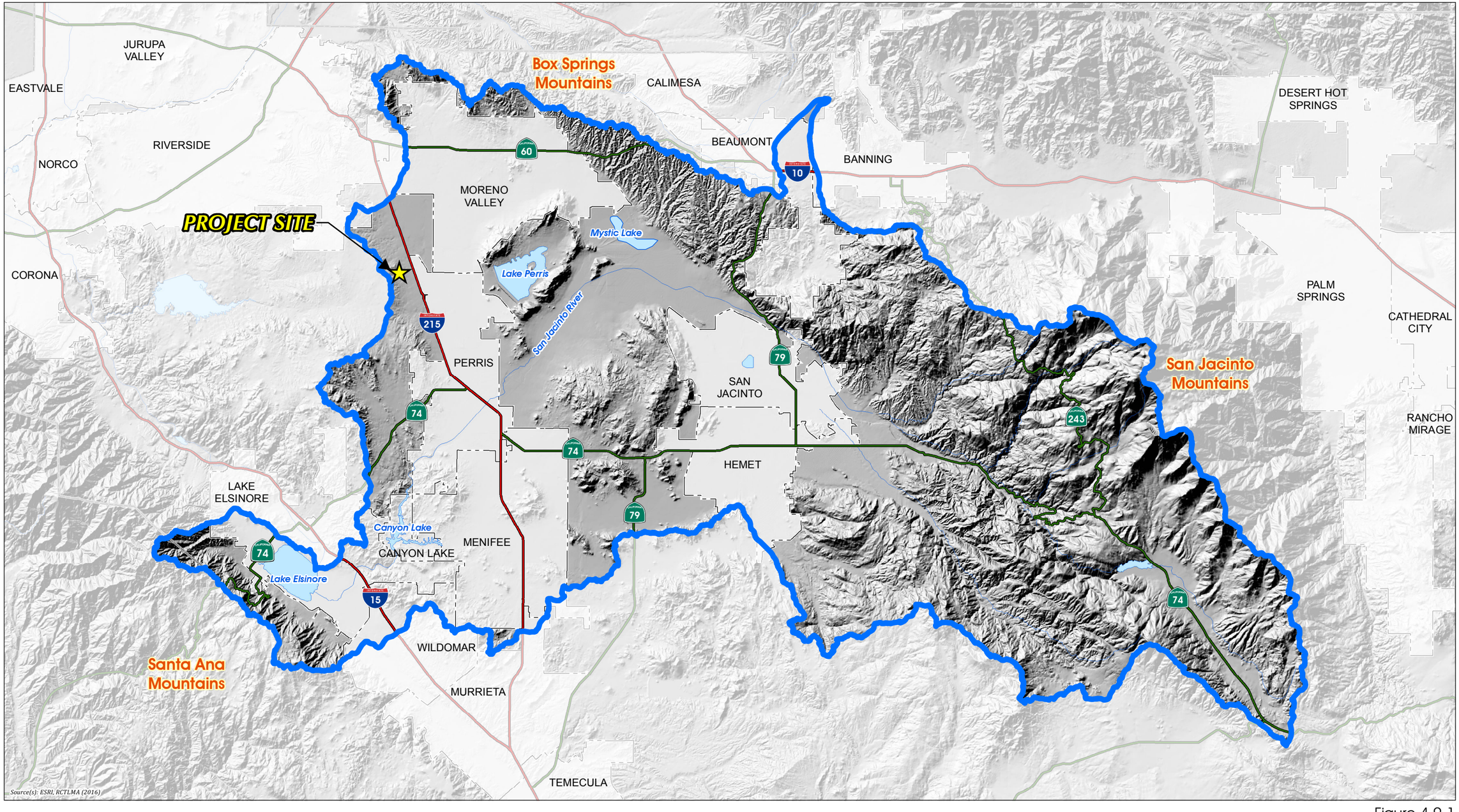
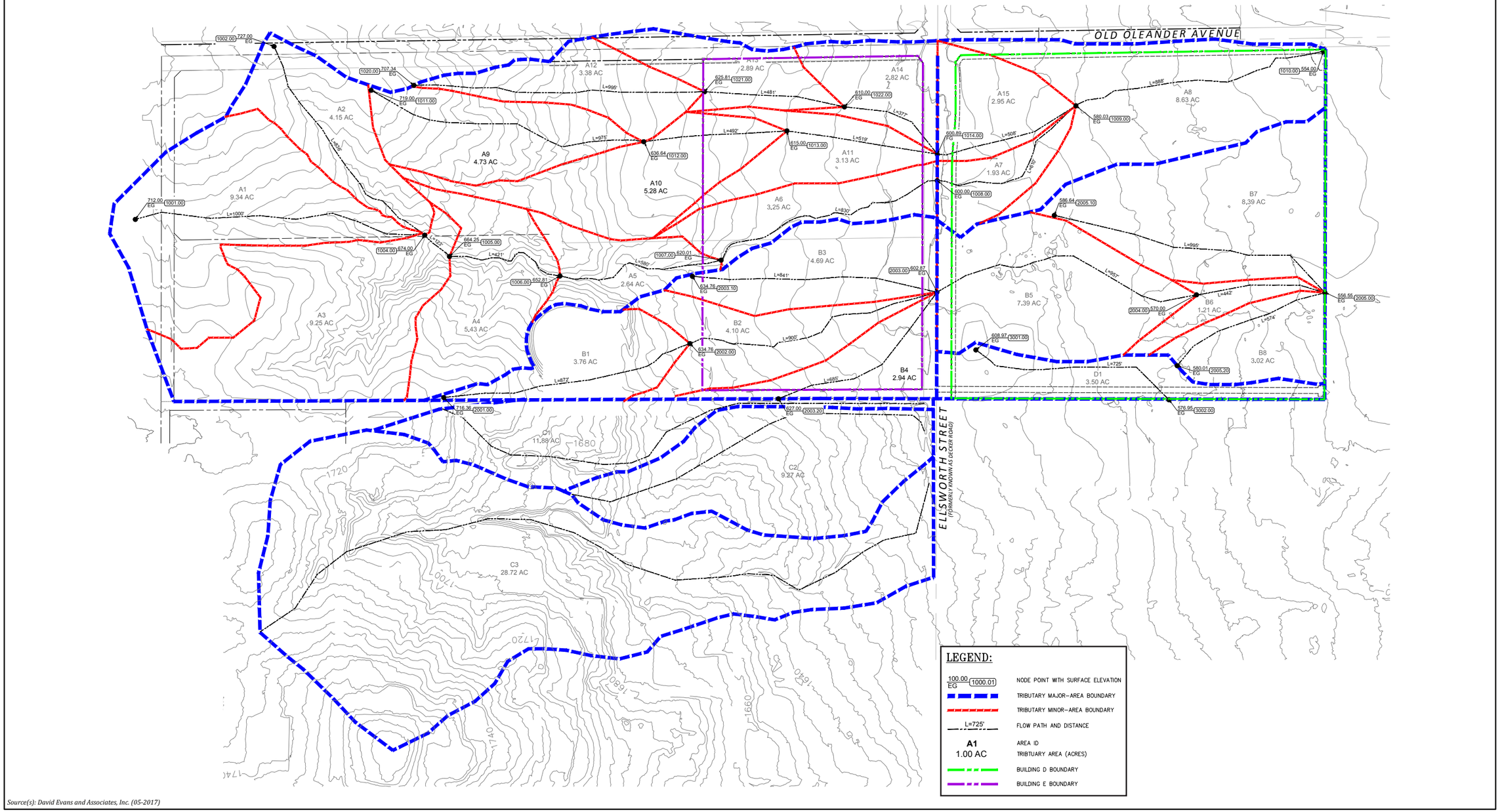


Figure 4.9-1

SAN JACINTO WATERSHED MAP



Source(s): David Evans and Associates, Inc. (05-2017)

Figure 4.9-2

NOT TO SCALE

EXISTING CONDITION HYDROLOGY MAP - PLOT PLANS 25838/25837

which sets forth goals and objectives for protecting water quality within the region (SARWQCB, 2011). One Water One Watershed (OWOW) is an Integrated Regional Water Management Plan (IRWMP) planning process being developed within the Sana Ana River Watershed. The OWOW 2.0 Plan, adopted by the Santa Ana Watershed Project Authority (SAWPA) Commission on February 4, 2014, reflects a collaborative planning process that addresses all aspects of water resources in the Watershed over a 20-year time period. (SAWPA, 2014)

The CWA Section 303(d) requires that States assess the quality of their water every two years and publish a list of those waters not meeting the water quality standards established for them. Water quality standards including beneficial uses, water quality objectives necessary to protect these uses and the antidegradation policy, are found in the Santa River Basin-Regional 8 (Basin Plan). For water bodies on the 303(d) List of Water Quality Segments, States are required to develop Total Maximum Daily Loads (TMDLs) for the pollutant(s) that are causing standards impairment. (CalEPA, 2015). As discussed above, the Project site is located in the San Jacinto and the San Jacinto Sub-Watershed of the greater Santa Ana River Watershed. The 2010 Santa Ana Region 303(d) List of Water Quality Limited Segments for the receiving waters for the property's drainage are San Jacinto Reaches 1 through 3; Lake Elsinore; Temescal Creek Reaches 1a through 6; Santa Ana Reaches 1 through 3; the Prado Basin Management Zone; Tidal Prism of Santa Ana River and Newport Slough; Pacific Ocean Nearshore Zone; and Pacific Ocean Offshore Zone. The EPA-approved 303(d) List Impairments for the Project site's receiving waters are: indicator bacteria (Temescal Creek, Reach 6 and Santa Ana River, Reach 2); pH (Temescal Creek, Reach 1); copper, lead, and pathogens (Santa Ana River, Reach 3); and enterococcus, fecal coliform, and total coliform (Newport Slough). (RWQCB, 2011)

The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a National Pollutant Discharge Elimination System (NPDES) permit program to control discharges is obtained. The NPDES permit program also requires operators of construction sites one acre or larger to prepare a Stormwater Pollution Prevention Plan (SWPPP) and obtain authorization to discharge stormwater under a NPDES construction stormwater permit.

D. Groundwater

The West San Jacinto Groundwater Management Area is located in western Riverside County, within the San Jacinto River Watershed portion of the greater Santa Ana River Watershed. The Management Area covers more than 164,200 acres and includes the cities of Moreno Valley, Menifee, and Perris, as well as unincorporated areas of Lakeview, Nuevo, and Winchester, including the area of the Project site. The Management Areas is divided into six groundwater management zones as well as essentially non-water bearing areas. Eastern Municipal Water District (EMWD) oversees the Groundwater Monitoring Programs within the Management Area, including groundwater quality, groundwater level, groundwater extraction, recycled water use, precipitation, and additional activities affecting the entire Management Area and/or specific groundwater management zones. Groundwater quality samples are taken annually, groundwater levels are measured semi-annually, and groundwater extraction is read monthly. EMWD's Groundwater Level

Monitoring Program characterizes basin hydrology and evaluates groundwater flow conditions. Measurements are taken twice annually, in the spring and fall. (EMWD, 2014, pp. 1, 5, and 16)

The Project site is located within the Perris North Groundwater Basin (EMWD, 2011 Figure 3-6). Within the Perris North Groundwater Basin, the minimum depth to water was measured at 3.3 feet and the maximum depth to water was measured at 212.7 feet in 2013 (EMWD, 2014, Table 4-3).

E. Flood Zones

According to Riverside County GIS and General Plan Amendment No. 960 (which reflect the most recent flood mapping information from the Federal Emergency Management Agency FEMA), the Project site is not located within an area subject to 100-year flood hazards. The nearest 100-year flood hazard area is located approximately 0.25-mile northwest of the Project Site. (RCIT, 2015; Riverside County, 2015c, Mead Valley Area Plan, Figure 11)

F. Applicable Policies and Regulations

1. Federal Policies and Regulations

❑ Clean Water Act

The basis of the Clean Water Act (CWA) was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was substantially reorganized and expanded in 1972. CWA became the Act's common name with amendments in 1972 when the Act became the "Clean Water Act" with amendments. The CWA establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. Under the CWA, the Environmental Protection Agency (EPA) has implemented pollution control programs such as setting wastewater standards for industry and water quality standards for all contaminants in surface water. The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a NPDES permit program to control discharges is obtained. The EPA defines point sources as discrete conveyances such as pipes or man-made ditches. Industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters. (USEPA)

The CWA requires all states to conduct water quality assessments of their water resources and identify water bodies that do not meet water quality standards. The Environmental Protection Agency (EPA) publishes recommended water quality criteria. States are not required to adopt the exact criteria, but state standards must be approved by the EPA and provide the same level of protection as EPA's standards. In California, water quality standards are established by the nine RWQCBs. The Project site is located in the Santa Ana region, and the *Santa Ana RWQCB's Santa Ana River Basin Water Quality Control Plan* is applicable to the Project site and vicinity.

The provisions of the CWA applicable to the proposed Project are as follows, which also apply to all construction sites of over one acre in size:

- CWA Section 401 requires federal agencies to obtain a Water Quality Certification from states, territories, and Indian tribes before issuing permits that would result in increased pollutant loads to a water body. A Section 401 certification can be issued only if increased pollutant loads would not cause or contribute to exceedances of water quality standards; and

- CWA Section 402 authorizes the National Pollutant Discharge Elimination System (NPDES) permit program that covers point sources of pollution discharging to a water body. The NPDES program also requires operators of construction sites one acre or larger to prepare a Stormwater Pollution Prevention Plan (SWPPP) for construction activities and obtain authorization to discharge stormwater under an NPDES construction stormwater permit. The NDPES program also requires certain land uses (e.g., industrial uses) to prepare a SWPPP for operational activities and to implement a long-term water quality sampling and monitoring program, unless an exemption has been granted. On April 1, 2014, the California State Water Resources Control Board adopted an updated NPDES permit for storm water discharge associated with industrial activities (referred to as the "Industrial General Permit"). The new Industrial General Permit, which is more stringent than the previous Industrial General Permit, became effective on July 1, 2015.

2. State Policies and Regulations

❑ Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act is the principal state law regulating water quality in California. The Porter-Cologne Water Quality Control Act establishes a comprehensive program to protect water quality and the beneficial uses of water, and applies to both surface and groundwater. As mentioned above, the State Water Resources Control Board adopts statewide water quality control plans and its nine RWQCBs are required to develop and adopt regional water quality control plans ("basin plans") that conform to state water quality policy. As mentioned above, the Project site is located in the Santa Ana region. As such, the Santa Ana RWQCB's Santa Ana River Basin Water Quality Control Plan is applicable to the Project site; it designates beneficial uses of water bodies to be protected and establishes water quality objectives.

❑ Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act of 2014 (SGMA) consists of three legislative bills, Senate Bill 1168 (Pavley), Assembly Bill 1739 (Dickinson), and Senate Bill 1319 (Pavley). The legislation provides a framework for long-term sustainable groundwater management across California, allowing local and regional authorities in medium- and high-priority groundwater basins to form Groundwater Sustainability Agencies (GSAs) that will oversee the preparation and implementation of a local Groundwater Sustainability Plan (GSP). Local stakeholders have until

2017 to organize themselves in GSAs and GSPs will have to be in place and implementation begun between 2020 and 2022. GSAs will have until 2040 to achieve groundwater sustainability.

3. Local Policies and Regulations

❑ Riverside County Ordinance No. 754 (as amended through 754.4)

Riverside County Ordinance No. 754 (codified as Chapter 13.12 in the Riverside County Code of Ordinances) requires new development or redevelopment projects to control stormwater runoff so as to prevent any deterioration of water quality that would impair subsequent or competing uses of water. The purpose and intent of the Riverside County Stormwater/Urban Runoff Management and Discharge Controls Ordinance is to ensure the future, health, safety, and general welfare of the County residents by:

A. Reducing pollutants in stormwater discharges to the maximum extent practicable;

B. Regulating illicit connections and discharges to the storm drain system; and

C. Regulating non-stormwater discharges to the storm drain system. The intent of this ordinance is to protect and enhance the water quality of County watercourses, water bodies, groundwater, and wetlands in a manner pursuant to and consistent with applicable requirements contained in the Federal Clean Water Act, Title 33 U.S.C.§§ 1521 et seq.), Porter-Cologne Water Quality Control Act (California Water Code §§ 1300 et seq.), any applicable state of federal regulations promulgated thereto, and any related administrative orders or permits issued in connection therewith. (County of Riverside, 2006)

4.9.2 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to hydrology and water quality if the Project or any Project-related component would:

Water Quality Impacts

a) Substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site;

b) Violate any water quality standards or waste discharge requirements;

c) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted);

d) Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;

e) Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;

f) Place within a 100-year flood hazard area structures which would impede or redirect flood flows;

g) Otherwise substantially degrade water quality; or

h) Include new or retrofitted stormwater Treatment Control Best Management Practices (BMPs) (e.g. water quality treatment basins, constructed treatment wetlands), the operation of which could result in significant environmental effects (e.g. increased vectors or odors).

Floodplains

a) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site;

b) Result in changes in absorption rates or the rate and amount of surface runoff;

c) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam (Dam Inundation Area); or

d) Result in changes in the amount of surface water in any water body.

4.9.3 IMPACT ANALYSIS

Water Quality	
Threshold a)	***Would the Project substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?***
Threshold b)	***Would the Project violate any water quality standards or waste discharge requirements?***

As described in detail later in this subsection, under Floodplain Threshold a), the Project would not result in substantial adverse effects to the drainage pattern of the Project site or local area. The analysis on the following pages evaluates the Project's potential to generate substantial waterborne pollution, including erosion and siltation.

1. Construction-Related Water Quality Impacts

Construction of the Project would involve grading, paving, utility installation, building construction, and landscaping installation; all of these activities would have the potential to generate water-borne pollutants such as silt, debris, chemicals, paints, and other solvents with the potential to affect water

quality. As such, short-term water quality impacts have the potential to occur during the Project's construction in the absence of any protective or avoidance measures.

Pursuant to the requirements of the Santa Ana RWQCB and Riverside County (as required by Ordinance No. 754), prior to the commencement of construction activities, the Project would be required to obtain coverage under the State of California NPDES Construction General Permit. The NPDES permit is required for all projects that include construction activities, such as clearing, soil stockpiling, grading, and/or excavation that disturb at least one (1) acre of total land area. In addition, the Project would be required to comply with the *Santa Ana RWQCB's Santa Ana River Basin Water Quality Control Program*. Compliance with the NPDES permit and the *Santa Ana River Basin Water Quality Control Program* involves the preparation and implementation of a SWPPP for construction-related activities, including grading. The SWPPP will specify the BMPs that the Project would be required to implement during construction activities to ensure that all potential pollutants of concern – including silt/sediment – are prevented, minimized, and/or otherwise appropriately treated prior to being discharged from the subject property. Examples of BMPs that could be used during Project construction include, but are not restricted to, sandbag barriers, geotextiles, storm drain inlet protection, sediment traps, rip-rap, and soil stabilizers/hydroseeding.

Mandatory compliance with the SWPPP will ensure that the Project does not violate any water quality standards or waste discharge requirements during short-term construction activities. Thus, water quality impacts associated with short-term construction activities would be less than significant and no mitigation would be required.

2. Post-Development Water Quality Impacts

Storm water pollutants commonly associated with industrial development projects include bacterial indicators, metals, nutrients, pesticides, toxic organic compounds, sediments, trash and debris, and oil and grease.

The Project would construct bioretention/detention basins on the Building D and Building E Sites to treat stormwater runoff that originates within the Project site (e.g. runoff from on-site parking lots, building roofs). The bioretention/detention basins would be sized to accommodate "first flush" stormwater flows; the "first flush" is the initial surface runoff of a rainstorm and contains the highest concentrations of pollution (the initial surface runoff absorbs pollution – atmospheric fallout, accidential spills, leakages – that has collected on impervious surfaces since the last rain storm). The bioretention/detention basins would be designed to control the release of stormwater runoff from the Project site, allowing time for pollutants to be removed from stormwater via settlement. The bioretention/detention basins also would be planted with plant materials that filter pollutants from stormwater and would contain a sand bed that would filter pollutants from stormwater as it percolates into the ground. Bioretention/detention basins are very effective at removing urban pollutants from stormwater runoff and would minimize the amount of waterborne pollution leaving the Project site via stormwater runoff.

In addition, to meet the requirements of the County's NPDES permit and in accordance with the Riverside County Code of Ordinances Section 13.12.060.C, the Project would be requried to prepare and implement Water Quality Management Plans (WQMPs). The WQMP is a site-specific, post-construction water quality management program designed to minimize the release of potential waterborne pollutants, including pollutants of concern for downstream receiving waters, under long-term conditions via BMPs. Implementation of the WQMP ensures on-going, long-term protection of the watershed basin. Prior to issuance of grading permits and/or building permits for the Project site, the County of Riverside would require that a site-specific WQMP be prepared for the Building D and Building E Sites. Compliance with the applicable WQMP would be required as a condition of approval for all development proposals on the Project site and long-term maintenance of on-site water quality features would be required to ensure their long-term effectiveness. Therefore, water quality impacts associated with post-development at the Project site and long-term operation of the Project would be less than significant. Therefore, long-term use of the Project site with industrial land uses would not violate any water quality standards or waste discharge requirements and impacts would be less than significant.

The Project also would be reuqired to demonstrate compliance with the NPDES program, which requires certain land uses (e.g., industrial uses) to prepare a SWPPP for operational activities and to implement a long-term water quality sampling and monitoring program, unless an exemption has been granted. On April 1, 2014, the California State Water Resources Control Board adopted an updated new NPDES permit for storm water discharge associated with industrial activities (referred to as the "Industrial General Permit"). The new Industrial General Permit, which is more stringent than the prior Industrial General Permit, became effective on July 1, 2015. The new NPDES Industrial General Permit requries the preparation of a SWPPP for operational activities and the implementation of a long-term water quality sampling and monitoring program unless an exemption is granted. Mandatory compliance with the NPDES Industrial General Permit would further reduce water quality impacts during long-term operation of the Project to below significant levels.

Water Quality Threshold c)	***Would the Project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?***

The Project would not install any water wells; therefore, the Project would not directly extract groundwater the Perris North Groundwater Basin. Notwithstanding, the Project would install impervious surfaces on the Building D and Building E Sites and the increase in impervious surface cover could reduce the amount of water percolating down into the groundwater basin that underlies the Project area. However, water captured by the Project's bioretention/detention basins and

landscaped areas would have the opportunity to percolate into the ground and would minimize potential adverse effects related to groundwater recharge. Thus, with buildout of the Project, the local groundwater levels would not be adversely affected and impacts to groundwater supplies and recharge would be less than significant.

Water Quality
Threshold d) Would the Project create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

As discussed under Floodplain Threshold a), the Project would be consistent with the Perris Valley MDP and existing/planned storm drain improvements have sufficient capacity to convey stormwater runoff generated by the Project. Accordingly, the Project would not create or contribute runoff that would exceed the capacity of any existing or planned stormwater drainage system, and impacts would be less than significant.

As discussed under Water Quality Thresholds a) and b), the Project would be required to comply with future SWPPPs and WQMPs, which will identify the BMPs to be incorporated into the Project to ensure that construction and operational activities on the Project site would not result in substantial amounts of polluted runoff. Therefore, with mandatory compliance with the Project's SWPPPs and WQMPs, the Project would not create or contribute additional sources of substantial, polluted runoff. Impacts would be less than significant.

Water Quality
Threshold e) Would the Project place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

The Project does not include housing and the Project site is not located within a 100-year flood hazard area (RCIT, 2015; Riverside County, 2015c, Mead Valley Area Plan, Figure 11). Accordingly, no impact would occur.

Water Quality
Threshold f) Would the Project place within a 100-year flood hazard area structures which would impede or redirect flood flows?

The Project site is not located within a 100-year flood hazard area (RCIT, 2015; Riverside County, 2015c, Mead Valley Area Plan, Figure 11). Therefore, the Project would not place structures within a 100-year flood hazard area that would impede or redirect flood flows. No impact would occur.

Water Quality
Threshold g) Would the Project otherwise substantially degrade water quality?

There are no components of the Project that would result in the substantial degradation of water quality beyond what is described above under Water Quality Thresholds a), b), and d). No impact would occur.

Water Quality
Threshold h) Would the Project include new or retrofitted stormwater Treatment Control Best Management Practices (BMPs) (e.g. water quality treatment basins, constructed treatment wetlands), the operation of which could result in significant environmental effects (e.g. increased vectors or odors)?

Bioretention/detention basins would be constructed on the Building D and Building E Sites. The Riverside County Airport Land Use Commission (ALUC) imposed a condition that requires bioretention/detention basins on the Project site to completely drain within 48 hours following the conclusion of a rain storm event for the design storm (may be less, but not more), and to remain totally dry between rainfalls. Vegetation in and around the detention basins that would provide food or cover for bird species that would be incompatible with airport operations would not be utilized in Project landscaping and trees would be spaced so as to prevent large expanses of contiguous canopy, when mature. The Project would be required to comply with ALUC conditions of approval (included as mitigation measures in EIR Section 4.8, *Hazards and Hazardous Materials*). Compliance with the ALUC's conditions of approval would preclude vector breeding on the Project site, as vectors, such as mosquitoes, require standing water for a minimum of 72 hours in order to breed. Normal maintenance activities for bioretention/detention basins, including landscape maintenance, debris and trash removal, would further minimize potential effects related to vectors and odors. Based on the foregoing information, the Project would not result in less-than-significant environmental effects related to the long-term operation of BMPs on the Building D and Building E Sites.

Floodplains
Threshold a) Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?

Threshold b) Would the Project result in changes in absorption rates or the rate and amount of surface runoff?

Development of the Project site would alter the site's existing drainage patterns; however, the Perris Valley MDP establishes the long-term drainage plan for the Project site and surrounding area. The Perris Valley MDP identifies the drainage system plan for the Perris Valley area that will safely convey stormwater runoff to major, regional drainage facilities (i.e., Perris Valley Storm Drain) in

consideration of physical barriers, topography, and ultimate land uses. The Project site is tributary to Line F of the Perris Valley MDP via Laterals F-3, F-3.1, and Lateral F-4.

Lateral F-3 is a planned storm drain line with a west-to-east alignment that would run beneath the future alignment of Redwood Drive, starting at Ellsworth Street and continuing to Harvill Avenue where it ties into Line F.

Lateral F-3.1 is a planned storm drain line with a (mostly) west-to-east alignment that would traverse the southern portion of the Building D Site. Lateral F-3.1 is planned to tie into Lateral F-3 to the south of the Building D Site.

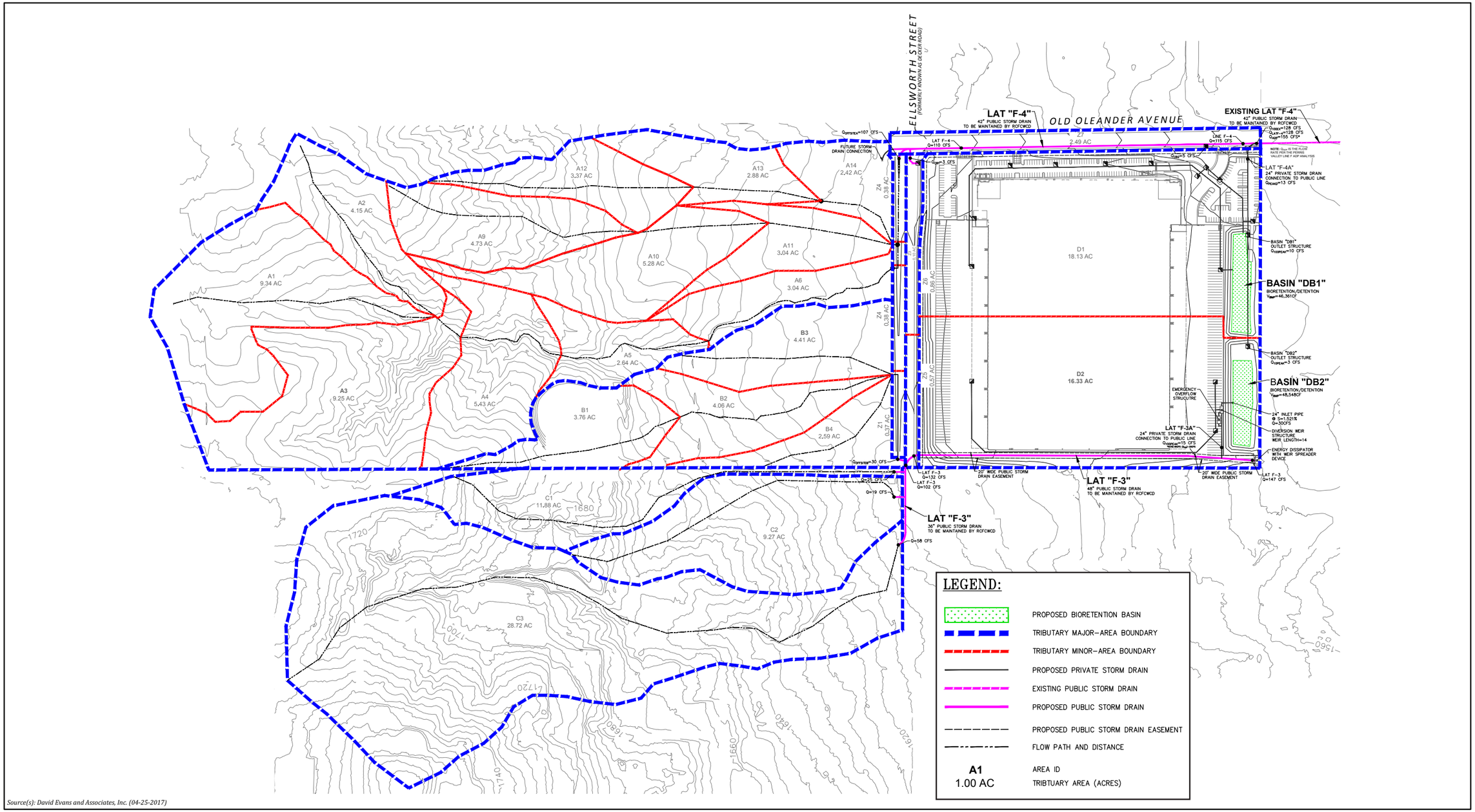
Lateral F-4 is a planned storm drain line with a west-to-east alignment that would run beneath Old Oleander Avenue, between the northeast corner of the Building E Site and Harvill Avenue. At Harvill Avenue, Lateral F would continue south beneath Harvill Avenue for approximately 1,200 feet before connecting with Line F. Under existing conditions, Lateral F is constructed up to the northeast corner of the Building D Site.

1. Building D Site

Figure 4.9-3, *Developed Condition Hydrology Map – Building D Site (Plot Plan 25838),* illustrates the post-development drainage conditions for the Building D Site.

In conjunction with development of the Building D Site, the Project would extend Lateral F-4 from its existing terminus near the northeast corner of the Building D Site to Ellsworth Street. Lateral F-4 would capture runoff flows from an off-site tributary located west of the Building D Site via storm drain inlets at the Old Oleander Avenue / Ellsworth Street intersection and, also, would receive runoff from the Building D Site via a bioretention/detention basin in the northern portion of the site and an outlet structure in the southern portion of the site. During peak storm events, the Building D Site would discharge approximately 13 cubic feet per second (cfs) into Lateral F-4; Lateral F-4 also would capture approximately 115 cfs from the off-site tributary located west of the Building D Site. The available capacity of Lateral F-4 is approximately 138 cfs; therefore, sufficient capacity is available to accommodate flows from the Building D Site and off-site tributary areas (i.e., 128 cfs). (DEA, 2017a, n.p.)

Due to the magnitude and direction of runoff flows from off-site tributary areas located west and southwest of the Building D Site, Laterals F-3 and F-3.1 need to be combined as a single storm drain line (Lateral F-3). As shown in Figure 4.9-3, Lateral F-3 would be constructed primarily along the southern boundary of the Building D Site, with an approximately 300-foot segment located beneath Ellsworth Street (extending approximately 150 feet south of the Building D Site). Lateral F-3 would outlet at an energy dissipator located at the southeast corner of the Building D Site. Lateral F-3 would capture runoff flows from off-site tributaries located west and southwest of the Building D Site via storm drain inlets within Ellsworth Street. Lateral F-3 also would receive runoff from the



Source(s): David Evans and Associates, Inc. (04-25-2017)

Figure 4.9-3

NOT TO SCALE

DEVELOPED CONDITION HYDROLOGY MAP - BUILDING D SITE (PLOT PLAN 25838)

Building D Site via a bioretention/detention basin in the southern portion of the site. During peak storm events, Building D would discharge 15 cfs to Lateral F-3; Lateral F-3 also would capture approximately 132 cfs from the off-site tributaries located west and southwest of the Building D Site.

The available capacity of Lateral F-3 is approximately 206 cfs; therefore, sufficient capacity is available to accommodate flows from the Building D Site and off-site tributary areas (i.e., 147 cfs). (DEA, 2017a, n.p.)

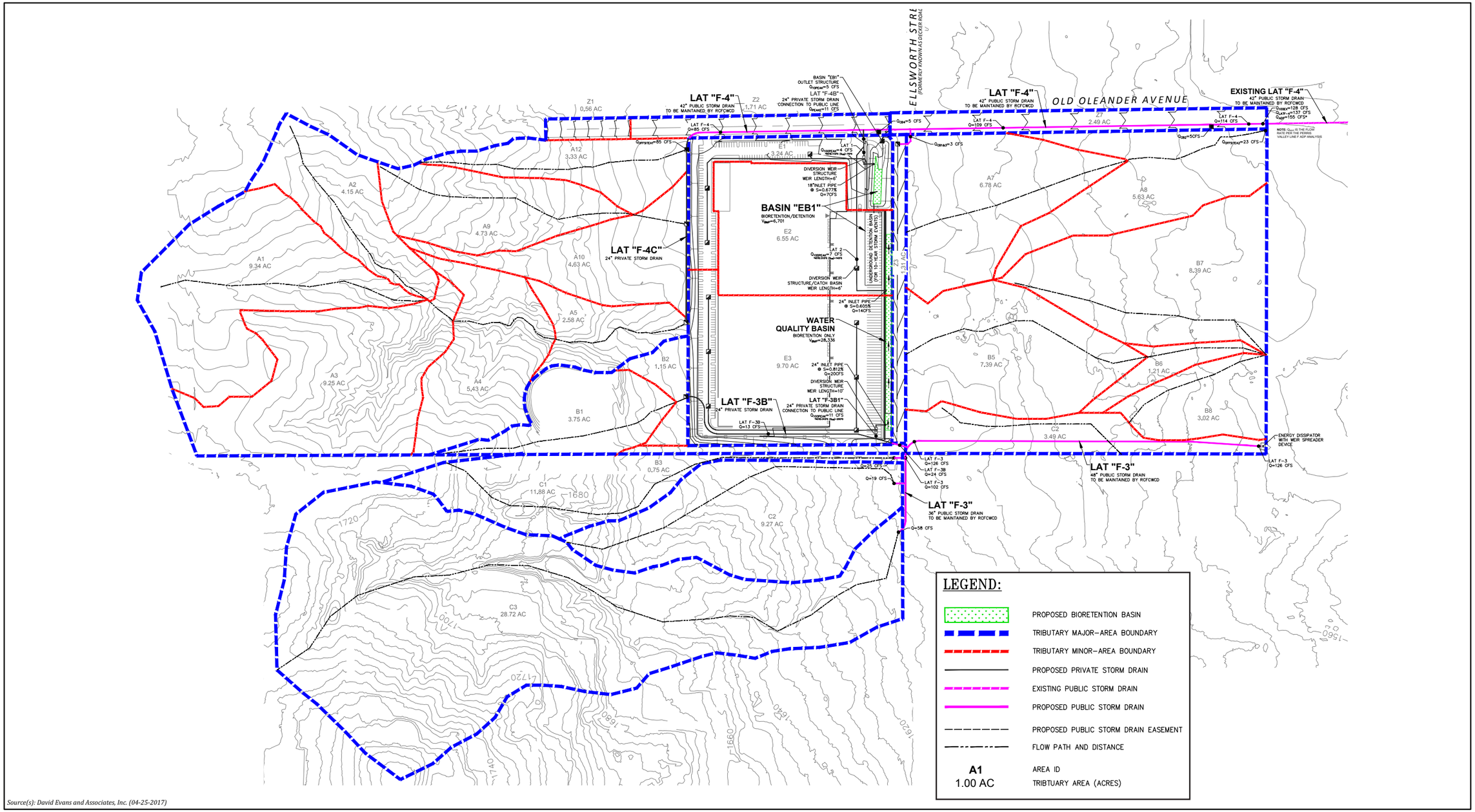
Based on the foregoing information, Building D would be consistent with the Perris Valley MDP and would not result in flooding on- or off-site due to the introduction of substantial, unanticipated storm water runoff. A less-than-significant impact would occur.

2. Building E Site

Figure 4.9-4, *Developed Condition Hydrology Map – Building E Site (Plot Plan 25837)* illustrates the post-development drainage conditions for the Building E Site.

In conjunction with development of the Building E Site, the Project would extend Lateral F-4 from its existing terminus near the northeast corner of the Building D Site to the northwest corner of the Building E Site. Lateral F-4 would capture runoff flows from an off-site tributary located west of the Building E Site via a storm drain inlet at the northwest corner of the Building E Site. Lateral F-4 also would receive runoff from the Building E Site via the on-site system of bioretention/detention basins, underground detention basins, and diversion weir structures. During peak storm events, the Building E Site would discharge approximately 16 cfs into Lateral F-4; Lateral F-4 also would capture approximately 120 cfs from the off-site tributary located west of the Building D Site. The available capacity of Lateral F-4 is approximately 138 cfs; therefore, sufficient capacity is available to accommodate flows from the Building D Site and off-site tributary areas (i.e., 137 cfs). (DEA, 2017a, n.p.)

Due to the magnitude and direction of runoff flows from off-site tributary areas located west and east of the Building E Site, Laterals F-3 and F-3.1 need to be combined as a single storm drain line (Lateral F-3). As shown in Figure 4.9-4, Lateral F-3 would be constructed along the southern boundary of the Building D Site. Lateral F-3 would outlet at an energy dissipator with weir device located at the southeast corner of the Building D Site. (It is important to note that Lateral F-3 is ultimately expected to be extended, by others, to Harvill Avenue as planned by the Perris Valley MDP.) Lateral F-3 would capture runoff flows from off-site tributaries located west and southwest of the Building E Site via storm drain inlets near the site's southwest corner and, also, would receive runoff from the Building E Site via a weir diversion structure in the southeastern portion of the site. During peak storm events, Building E would discharge 11 cfs to Lateral F-3; Lateral F-3 also would capture approximately 115 cfs from the off-site tributaries located west and southwest of the Building E Site. The available capacity of Lateral F-3 is approximately 206 cfs; therefore, sufficient capacity is available to accommodate flows from the Building E Site and off-site tributary areas (i.e., 126 cfs). (DEA, 2017a, n.p.)



Source(s): David Evans and Associates, Inc. (04-25-2017)

Figure 4.9-4

NOT TO SCALE

DEVELOPED CONDITION HYDROLOGY MAP - BUILDING E SITE (PLOT PLAN 25837)

Based on the foregoing information, Building E would be consistent with the Perris Valley MDP and would not result in flooding on- or off-site due to the introduction of substantial, unanticipated storm water runoff. A less-than-significant impact would occur.

3. Project Buildout (Building D + Building E)

Figure 4.9-5, *Developed Condition Hydrology Map – Ultimate Condition (Plot Plans 25838/25837*) illustrates drainage conditions upon full buildout of the Project. At full buildout, the Project would include the same storm drain facilities and improvements described above under the individual analyses for the Building D and Building E Sites. During peak storm events, the Project would discharge approximately 29 cfs of stormwater runoff to Lateral F-4 and approximately 26 cfs of stormwater runoff to Lateral F-3. When peak storm runoff flows from off-site tributary areas are added to the Project's flows, Lateral F-4 would have a total flow of 130 cfs and Lateral F-3 would have a total flow of 141, both of which are below their available capacities of 138 cfs and 206 cfs, respectively. (DEA, 2017a, n.p.)

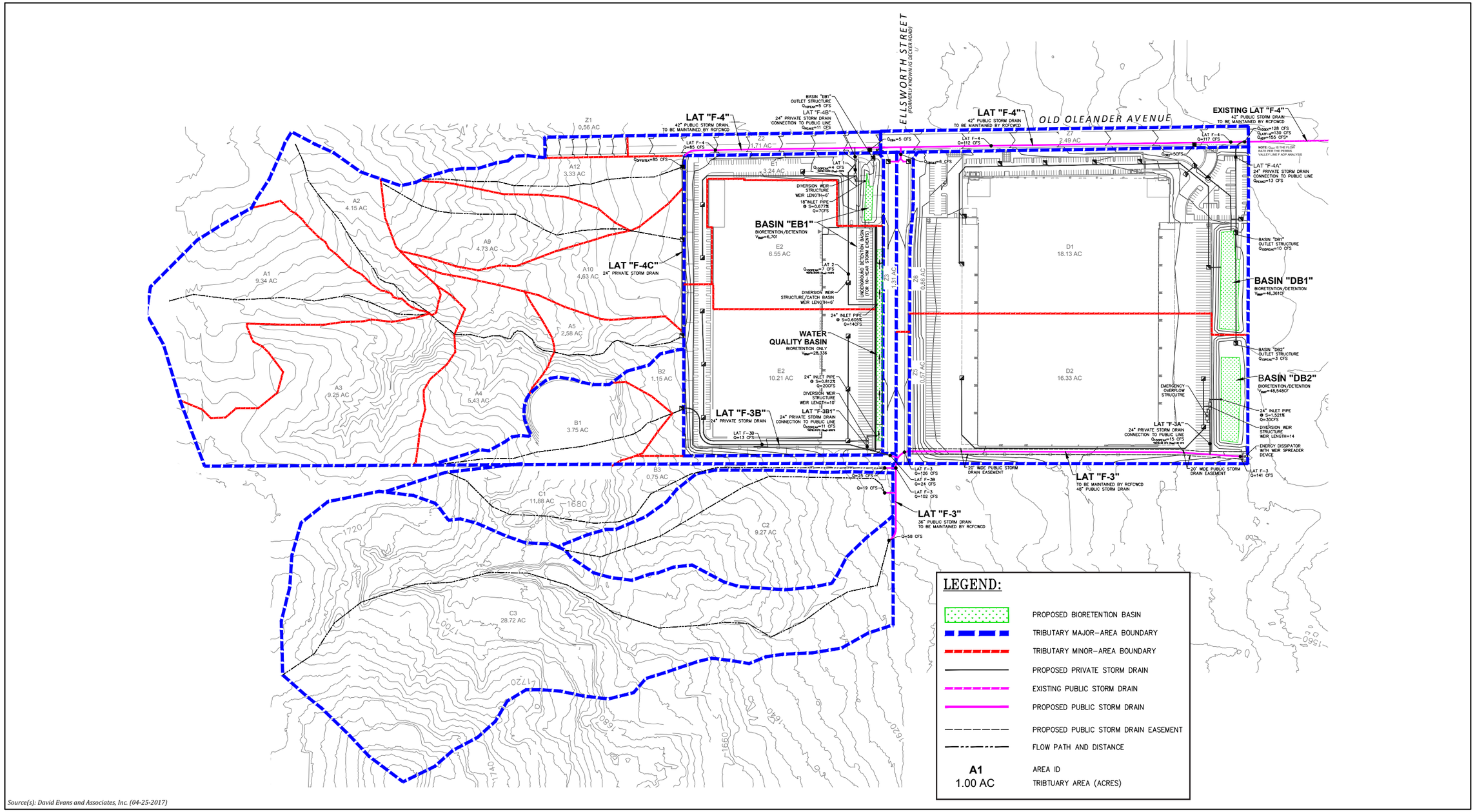
Based on the foregoing information, the Project would be consistent with the Perris Valley MDP and would not result in flooding on- or off-site due to the introduction of substantial, unanticipated storm water runoff. The Project's impact would be less than significant.

Floodplains
Threshold c) Would the Project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam (Dam Inundation Area)?

The Project site is not located within a flood hazard area (RCIT, 2015; Riverside County, 2015c, Mead Valley Area Plan, Figure 11). In addition, according to the Mead Valley Area Plan (MVAP) Figure 10, *Flood Hazards*, the Project site and surrounding area are not subject to dam inundation hazards (Riverside County, 2003b, Figure 10). Because the Project would not expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam, no impact would occur.

Floodplains
Threshold d) Would the Project result in changes in the amount of surface water in any water body?

Runoff from the Project site would be conveyed in a general south/southwest direction toward Lake Elsinore, which is located approximately 12.5 miles southwest of the Project site. As discussed above under Floodplain Threshold a), the stormwater drainage infrastructure proposed by the Project, including the bioretention/detention basins on the Building D and Building E Sites, would be designed to ensure that the historical drainage characteristics of the Project site and surrounding areas



Source(s): David Evans and Associates, Inc. (04-25-2017)

Figure 4.9-5

NOT TO SCALE

DEVELOPED CONDITION HYDROLOGY MAP - ULTIMATE CONDITION (PLOT PLANS 25838/25837)

would not be substantially altered. Accordingly, the Project is not expected to result in substantial changes in the amount of surface water in any water body. Impacts would be less than significant.

4.9.4 CUMULATIVE IMPACT ANALYSIS

The cumulative impact analysis considers construction and operation of the proposed Project in conjunction with other development projects in the vicinity of the Project site and resulting from full General Plan buildout in the County of Riverside and surrounding areas. The analysis of potential cumulative impacts to hydrology and water quality is divided into two general topics (water quality and floodplains) as defined by the Thresholds of Significance.

Water Quality

During Project construction, the proposed Project and other development projects within the Santa Ana River watershed would have the potential to result in a cumulative water quality impact, including erosion and sedimentation. Pursuant to the requirements of the State Water Resources Control Board and the Santa Ana RWQCB, all construction projects that disturb one or more acres of land area are required to obtain a NPDES permit and obtain coverage for construction activities. In order to obtain coverage, an effective site-specific SWPPP is required to be developed and implemented for all development projects. The SWPPP must identify potential on-site pollutants and identify and implement an effective combination of erosion control and sediment control measures to reduce or eliminate discharge of pollutants to surface water from stormwater and non-stormwater discharges. In addition, the Project and all cumulative developments would be required to comply with the Santa Ana RWQCB's *Santa Ana River Basin Water Quality Control Program*. With compliance to these mandatory regulatory requirements, the Project's contribution to water quality impairments during Project construction would not be cumulatively considerable and mitigation is not required.

WQMPs would be required for all development on the Project site. Compliance with the applicable WQMP would be required as a condition of approval for future development activities pursuant to Riverside County Code of Ordinances Section 13.12.060.C. Other developments within the watershed would similarly be required to prepare site-specific WQMPs and to incorporate BMPs into site design as necessary to ensure that runoff does not substantially contribute to existing water quality violations, pursuant to the requirements of RWQCB Order No. R8-2010-0033. Accordingly, under long-term conditions, the Project site would not contribute to cumulatively considerable water quality effects and no mitigation would be required.

The Project would not directly extract groundwater; however, with addition of the proposed Project and surrounding cumulative developments, an increase in impervious surface cover would occur, which could reduce the amount of water percolating into the groundwater supply in the Project's area. Based on population growth and development projections, EMWD calculated that its groundwater supply under normal, single, and multi-dry year conditions is projected to remain unchanged as compared to existing conditions (13,200 AFY) through at least the year 2035 (EMWD,

2011, p. 30). EMWD noted that groundwater extraction in the Project's area in the West San Jacinto Groundwater Basin is anticipated to remain static by recharging the groundwater basin with imported water (EMWD, 2011, p. 52). Thus, development of the Project in addition to other local cumulative development projects would not result in cumulatively considerable adverse effects to local groundwater resources. Furthermore, pursuant to the SGMA, EMWD will be required to prepare and implement a GSP to ensure that groundwater resources in the Project area remain at a sustainable level.

Floodplains

As with the proposed Project, all development activities within the Perris Valley MDP would be required to be consistent with the MDP, thereby ensuring that cumulative development activities can accommodate projected stormwater runoff flows and preclude the potential for flooding. Accordingly, the Project would not result in adverse, cumulatively considerable effects related to flooding.

The Project site is not located within a 100-year flood hazard area. Accordingly, development on the Project site would have no potential to place housing, or other structures, within a 100-year floodplain or impede or redirect flood flows within a 100-year floodplain and no cumulatively considerable impact would occur.

The Project site is not subject to flood hazards associated with failure of a levee or dam. As such, the Project has no potential to contribute to cumulative impacts associated with such failures.

The Project would not result in changes in the amount of surface water in any water body. As such, the Project has no potential to contribute to cumulative impacts to a change in the amount of surface water in any water body.

4.9.5 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Water Quality

Threshold (a) for the Building D Site and the Building E Site: Less-than-Significant Impact. Development on the Building D Site and Building E Site would not result in substantial erosion or siltation on- or off-site.

Threshold (b) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would not violate any water quality standards or waste discharge requirements on a direct or cumulatively considerable basis. The Project is required to prepare and comply with a Storm Water Pollution Prevention Program (SWPPP) to address short-term construction-related water quality issues, and is required to comply with the site-specific Water Quality Management Plans (WQMPs) and their associated Best Management Practices (BMPs).

Threshold (c) for the Building D and the Building E Site: Less-than-Significant Impact. Groundwater wells would not be installed on either the Building D Site or Building E site; therefore, the Project would not directly extract groundwater. Also, the Project would not interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or lowering of the local groundwater table.

Threshold (d) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would not create or contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems, nor would the Project provide substantial additional sources of runoff.

Threshold (e) for the Building D Site and the Building E Site: No Impact. The Project does not involve the construction of housing and neither the Building D Site nor the Building E Site are located within a flood hazards zone. Therefore, the Project would not place housing in a 100-year flood zone.

Threshold (f) for the Building D Site and the Building E Site: No Impact. Neither the Building D Site nor the Building E Site are located within a flood hazard zone; therefore, there is no potential for the Project to construct structures within a flood hazard zone that could redirect flood flows.

Threshold (g) for the Building D Site and the Building E Site: No Impact. There are no Project components that would otherwise result in the substantial degradation of water quality.

Threshold (h) for the Building D Site and the Building E Site: Less-than-Significant Impact. The proposed Project would not result in significant environmental effects associated with storm water features such as increased vectors or odors.

Floodplains

Threshold (a) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project is consistent with the Perris Valley MDP and would not result in flooding on- or off-site.

Threshold (b) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project is consistent with the Perris Valley MDP and would not result in on- or off-site flooding due to changes in absorption rates and/or the amount of surface runoff.

Threshold (c) for the Building D Site and the Building E Site: No Impact. The Project would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

Threshold (d) for the Building D Site and the Building E Site: No Impact. The Project would not result in changes in the amount of surface water in any water body.

4.9.6 MITIGATION

Applicable County Regulations and Design Requirements

The following are applicable regulations and design requirements to which the Project is required to comply. Although these regulations and requirements technically do not meet CEQA's definition for mitigation, they are listed below for information purposes.

- Prior to issuance of a grading permit, the Project Applicant shall obtain coverage under a National Pollutant Discharge Elimination System (NPDES) permit from the State Water Resources Control Board. Evidence that a NPDES permit has been issued shall be provided to the County of Riverside prior to issuance of a grading permit.

- Prior to issuance of a grading permit, the Project Applicant shall prepare a Stormwater Pollution Prevention Plan (SWPPP). Project contractors shall be required to ensure compliance with the SWPPP and shall permit periodic inspection of the construction site by the County of Riverside staff or its designee to confirm compliance.

- Prior to issuance of a grading permit, the Project Applicant shall prepare and the County of Riverside shall approve a Final Water Quality Management Plan (WQMP). The Project Applicant or its property manager shall be required to ensure compliance with the Final WQMP and shall permit periodic inspection of the Project site by County of Riverside staff or its designee to confirm compliance.

- Prior to issuance of a grading permit, the Project Applicant shall obtain a National Pollutant Discharge Elimination System (NPDES) permit – or qualify for an exemption thereto – for operational activities.

Mitigation

Impacts would be less than significant. No mitigation is required.

4.10 LAND USE AND PLANNING

This subsection discusses the Project's consistency with applicable land use and planning policies adopted by the County of Riverside and other governing agencies for the purpose of reducing adverse effects on the physical environment.

Information used to support the analysis in this Subsection was obtained from the 2003 Riverside County General Plan (last updated in 2014) and the General Plan Update (approved in December 2015). At the time the Notice of Preparation for this EIR was issued (August 2015), the 2003 General Plan was in effect and the County of Riverside was in the process of updating its General Plan. The County approved the General Plan Update in December 2015. The analysis is this Subsection addresses the 2003 General Plan, which was the approved version of the General Plan at the time this EIR's NOP was released, and the General Plan Update that was approved in December 2015. The NOP issuance date establishes the environmental setting for the EIR, pursuant to CEQA Guidelines § 15215(a). Regardless, the analysis in this Subsection uses information from the General Plan Update when the updated information is relevant and applicable to the discussion. *Technical Appendix M* to this EIR contains a consistency analysis that discusses the proposed Project's consistency with applicable policies of the County's General Plan (2003) and General Plan Update (2015). Both the 2003 General Plan and the General Plan Update are herein incorporated by reference pursuant to CEQA Guidelines § 15150, and are available for review at County of Riverside Transportation and Land Management Agency Planning Department, 4080 Lemon Street, 12th Floor, Riverside, California 92502, as well as on the County of Riverside's website noted in Section 7.0, *References*.

4.10.1 EXISTING CONDITIONS

A. Existing Land Use and Development

The Project site consists of vacant, undeveloped land, with exception of the southwestern portion of the Building D Site which contains a mobile home and a concrete pad that is used for the storage of construction equipment. The undeveloped portions of the Project site are regularly maintained for weed abatement and wildfire suppression purposes.

The Project site is located within the I-215 corridor, which is an area of Riverside County that is developing as an employment center, containing business park, distribution warehousing, e-commerce, and light industrial land uses. Lands north of the Project site are largely undeveloped, with exception of a recently-constructed industrial warehouse building located north of Oleander Road and east of Harvill Avenue. To the south of the Project site are scattered, rural residences, business enterprises, and undeveloped land. To the southwest of the Project site is a water tank owned by the Eastern Municipal Water District (EMWD). To the west of the Project site are undeveloped lands, beyond which are single family homes. To the east of the Project site are undeveloped lands, several scattered single family homes, and an industrial warehouse building located along the eastern edge of Harvill Avenue. Approximately 0.4 miles to the east of the Project site is I-215, beyond which is the March Air Reserve Base (MARB) and industrial land within the City of Moreno Valley's *Moreno Valley*

Industrial Area Plan, which is developing as a regional hub for light industrial and distribution warehouse development.

B. Sphere of Influence

The Project site is located within the Sphere of Influence (SOI) of the City of Perris. A SOI is a geographic area that could eventually be incorporated into a city by annexation, subject to approval of the Riverside County Local Agency Formation Commission (LAFCO).

C. Applicable Land Use and Planning Policies

1. County of Riverside General Plan and Mead Valley Area Plan

The County of Riverside General Plan is a policy document that reflects the County's vision for the future. At the time the Notice of Preparation for this EIR was issued (August 2015), the County of Riverside was in the process of updating its General Plan; however, the General Plan Update was in draft form at that time and subsequently approved in December 2015. The analysis is this Subsection primarily relies on information contained in the 2003 General Plan, which was the approved version of the General Plan at the time this EIR's NOP was released, and the General Plan Update that was approved in December 2015. The General Plan is organized into nine elements, including Land Use, Circulation, Multipurpose Open Space, Safety, Noise, Housing, Air Quality, Healthy Communities, and Administration, which establish County-wide policies to guide the County's vision for future development. The General Plan also includes a series of Area Plans that establish community-specific policies to guide future growth, preclude land use inconsistencies, protect residents' quality of life, and maximize public safety. The Project site is located within the General Plan's Mead Valley Area Plan (MVAP).

❑ Land Use Element

The Land Use Element designates the general distribution, general location, and extent of land uses, such as housing, business, industry, open space, agriculture, natural resources, recreation, and public-quasi-public uses. The Land Use Element also discusses the standards of residential and non-residential density intensity for the various land use designations. The Land Use Element also provides development standards related to each land use category, and general plan policy level direction for an array of land-use related issues such as hillside development and community design. (Riverside County, 2003a) (Riverside County, 2015)

The Riverside County General Plan's Land Use Element and the MVAP Land Use Plan designate approximately 8.6 acres on the Building D Site and 19.0 acres on the Building E Site (27.6 acres total) for "Community Development-Business Park (CD-BP)" land uses and approximately 25.9 acres on the Building D Site for "Community Development –Light Industrial (CD-LI)" land uses. The CD-BP land use designation allows for employee-intensive uses, including research & development, technology centers, corporate offices, clean industry, and supporting retail uses at a maximum building intensity of 0.60 floor area ratio (FAR). The CD-LI land use designation allows for industrial and related uses including warehousing/distribution, assembly and light manufacturing, repair facilities,

and supporting retail uses at a maximum building intensity of 0.60 FAR. (Riverside County, 2003a, Table LU-4) The General Plan land uses for the Project site and surrounding areas were previously illustrated on EIR Figure 2-2, *Existing General Plan Land Use Designations*.

❑ Circulation Element

The Circulation Element identifies the general location and extent of existing and proposed major transportation facilities, including major roadways, rail, transit systems, and airports. The Circulation Element also identifies and provides policy direction for implementation of the Community Environmental Transportation Acceptability Process (CETAP) Corridors. (Riverside County, 2003a, p. I-13) (Riverside County, 2015) A detailed description of the Project's relationship to the Circulation Element and an analysis of the Project's consistency with the Circulation Element is provided in EIR Subsection 4.15, *Transportation*.

❑ Multipurpose Open Space Element

The Multipurpose Open Space Element addresses the conservation, development, and use of natural resources, including water, soils, rivers, and mineral deposits. The Multipurpose Open Space Element details plans and measures for preserving open space for protection of natural resources such as wildlife habitat; the managed availability of space for parks, trails, and scenic vistas; and protection of public health and safety through protection of areas subject to geologic hazards, flooding and fires. (Riverside County, 2003a, p. I-13) (Riverside County, 2015)

❑ Safety Element

The Safety Element establishes policies and programs to protect the community from risks associated with seismic, geologic, flood, and wildfire hazards. The Safety Element serves the following functions: develops a framework by which safety considerations are introduced into the land use planning process; facilitates identification and mitigation of hazards for new development and thus strengthens existing codes; project review, and permitting processes; presents policies directed at identifying and reducing hazards in existing development; and strengthens earthquake, flood, inundation, and wildland fire preparedness planning and post-related reconstruction policies. (Riverside County, 2003a, pp. I-13 and S-1) (Riverside County, 2015)

❑ Noise Element

The Noise Element identifies and appraises noise problems and includes policies to protect the County from excessive noise (Riverside County, 2003a, p. I-13). (Riverside County, 2015)

❑ Housing Element

The Housing Element assesses current and protected housing needs, and sets out policies and proposals for the improvement of housing and the provision of adequate sites for housing to meet the needs of all economic segments of the County (Riverside County, 2003a, p. I-13) (Riverside County, 2015).

❑ Air Quality Element

The Air Quality Element identifies and appraises air quality problems and includes policies to improve air quality (Riverside County, 2003a, p. I-13) (Riverside County, 2015).

❑ Healthy Communities Element

The Healthy Communities Element establishes policies to address primary health issues that may address County residents, such as high rates of obesity, chronic illness, air pollution, lack of access to healthy foods, unsafe environments, and lack of access to health care and mental health services (Riverside County, 2003a, p. I-13) (Riverside County, 2015).

❑ Administration Element

The Administration Element establishes policies and procedures for the County to administer and implement the General Plan (Riverside County, 2003a, p. I-13) (Riverside County, 2015).

❑ Mead Valley Area Plan

The MVAP guides the physical development in the unincorporated portions of the Perris Valley, north and west of the City of Perris, west of the City of Moreno Valley, and south of the City of Riverside. The MVAP is not a stand-alone document, but rather an extension of the County of Riverside General Plan. The County of Riverside General Plan establishes standards and policies for development within the entire unincorporated County territory. The MVAP, on the other hand, provides customized direction specifically for the Mead Valley area by establishing local Policy Areas. The Project site is not located within any MVAP Policy Area. (Riverside County, 2003a, Mead Valley Area Plan, p. 1 & Figure 4)

2. County of Riverside Zoning Designations

Development of the Project site is regulated by development regulations and design standards contained within the County of Riverside's Zoning Ordinance (Ordinance No. 348). Under existing conditions, the County of Riverside has applied different zoning designations to the Project site. The Building D Site is zoned for "Manufacturing – Medium (M-M)," "Rural Residential (R-R)," and "Industrial Park (I-P)." The Building E Site is zoned for "Rural Residential 1/2-Acre Lot Sizes (R-R-1/2) and "Industrial Park (I-P)." The M-M zoning designation allows for limited agricultural uses, medium-intensity manufacturing and commercial uses. The "R-R" land uses allow for large-lot, single family residential development with small-scale agricultural and animal keeping uses. The "I-P" zoning designation allows for industrial and manufacturing uses with approval of a plot plan. The zoning designations for the Project site and surrounding areas were previously illustrated on EIR Figure 2-3, *Existing Zoning Designations*.

4.10.2 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to land use and planning if the Project or any Project-related component would:

Land Use

a) *Result in a substantial alteration of the present or planned land use of an area;*

b) *Affect land use within a city sphere of influence and/or within adjacent city or county boundaries.*

Planning

a) *Be consistent with the site's existing or proposed zoning;*

b) *Be compatible with existing surrounding zoning;*

c) *Be compatible with existing and planned surrounding land uses;*

d) *Be consistent with the land use designations and policies of the Comprehensive General Plan (including those of any applicable Specific Plan);*

e) *Disrupt or divide the physical arrangement of an established community (including a low-income or minority community).*

4.10.3 IMPACT ANALYSIS

Land Use
Threshold a) Would the Project result in a substantial alteration of the present or planned land use of an area?

Under existing conditions, the Project site consists mostly of vacant, undeveloped land, with the exception of a mobile home, outbuildings, and equipment storage area in the southwestern portion of the Building D Site. The Project would develop the subject property with two business park warehouse buildings and associated site improvements, including, but not limited to, surface parking areas, vehicle drive aisles, truck courts, utility infrastructure, landscaping, exterior lighting, signage, walls and fencing, and water quality/detention basins. The changes to the Project site proposed by the Project represent a substantial alteration to the site's present land use. The land use change proposed by the Project is not inherently significant; but, would be considered significant if the change were to result in significant, adverse physical effects to the environment that would not otherwise occur under the site's current use. As disclosed in this EIR, the proposed Project would result in adverse effects to the environment. This EIR provides mitigation to reduce the Project's effect on the environment to less-than-significant levels when feasible; however, mitigation is not available to reduce all of the Project's impacts to less than significant. Accordingly, the Project's alteration of the present land use on the Project site is considered a significant land use impact.

Pursuant to the Project site's existing General Plan and MVAP land use designations, the subject property can be developed with up to 721,353 s.f. of business park (CD-BP) building space and 676,000 s.f. of light industrial (CD-LI) building space (for a total of up to 1,397,353 s.f. of building space). The Project would amend the General Plan and MVAP to designate the entire Project site for CD-LI land uses, which would accommodate the proposed development of two warehouse buildings having a collective total of 1,113,627 s.f. of building space on the Project site. The land uses proposed by the Project (i.e., light industrial, containing two warehouse buildings) would not differ substantially from the range of CD-BP and CD-LI land uses that are permitted on the subject property under existing conditions. CD-LI allows for high cube warehouse buildings, whereas CD-BP allows for similar and compatible uses, such as research & development, technology centers, corporate offices, clean industry, and supporting retail uses (although not high cube warehouse as proposed by the Project). Accordingly, the Project's conversion of areas planned for CD-BP to CD-LI is not regarded as a substantial alteration of the planned land uses for the Project site.

Land Use
Threshold b) Would the Project affect land use within a city sphere of influence and/or within adjacent city or county boundaries?

The Project site is located in the Sphere of Influence (SOI) of the City of Perris. Neither the City's General Plan Land Use Map nor its Zoning Map identify land use designations for properties within its SOI (City of Perris, 2013; City of Perris, 2014). Because the City of Perris does not assign land use or pre-zoning designations to the Project site, implementation of the Project as proposed would have no potential to adversely impact Perris' planned use of the land. No impact would occur.

Planning
Threshold a) Would the Project be consistent with the site's existing or proposed zoning?

The Building D Site is zoned "Manufacturing – Medium (M-M)," "Industrial Park (I-P)," and "Rural Residential One-Half Acre Lot Size (R-R)" under existing conditions. A Change of Zone application (CZ 7872) is proposed to change the zoning designations of the portions of the property zoned "M-M" and "R-R" to "I-P", so that the entire Building D Site is zoned "I-P".

The Building E Site is zoned "Rural Residential 1/2-Acre Lot Sizes (R-R-1/2) and "Industrial Park (I-P)" under existing conditions. A Change of Zone application (CZ 7873) is proposed to change the zoning designations of the portion of the property zoned "R-R-1/2" to "I-P".

Development proposed on the Building D Site and the Building E Site would be consistent with the land use regulations and development standards for the I-P zone, as established by the County's Zoning Ordinance (Ordinance No. 348). The environmental effects associated with developing the Project site in accordance with the I-P zone designation is analyzed throughout this EIR. There would not be any significant, physical environmental effects on the Project site associated with the proposed Change of

Zone applications that are not otherwise evaluated throughout this EIR. The Project would be consistent with the proposed I-P zone designation. As such, impacts would be less than significant.

Planning
Threshold b) Would the Project be compatible with existing surrounding zoning?

Zoning designations surrounding the Project site include the following: "Industrial Park (I-P)" and "Manufacturing-Medium (M-M)" to the north; "I-P" and "Manufacturing-Service Commercial (M-SC) to the east; "Rural-Residential (R-R)" and "I-P" to the south; and "Light Agriculture (A-1)" and "Rural Residential 1/2-Acre Lot Sizes (R-R-1/2)" to the west. The Project's proposed industrial land use and zoning designation would be compatible with the industrial zoning designations (i.e., I-P, M-M, and M-SC) located to the north, east, and south of the Project site. The Project incorporates design features such as landscaped manufactured slopes, screen walls/noise barriers and landscaping buffers to provide physical separation and buffers between the Project and the rural residential zoning designation to the south of the Project site and rural residential and light agriculture zoning designations to the west. Furthermore, the Project would not result in any substantial adverse effects to the rural residential areas and light agriculture zoned areas to the south and west of the Project site after the application of mandatory regulatory requirements and the inclusion of the mitigation measures required by this EIR. Because the Project would not expose the adjacent rural residential and light agriculture zoned areas located south and west of the Project site to substantial adverse environmental effects during construction or long-term operation, the Project would be compatible with the abutting rural residential and light agriculture zones. Accordingly, the Project's impacts related to compatibility with existing surrounding zoning would be less than significant.

Planning
Threshold c) Would the Project be compatible with existing and planned surrounding land uses?

Areas to the north and east of the Project site are largely undeveloped under existing conditions, with the exception of a large industrial warehouse building located at the northwest corner of the Harvill Avenue / Oleander Road intersection. These areas are planned by the General Plan and MVAP for "CD-BP" and "CD-LI" land uses. The Project's two proposed business park warehouse buildings and associated on-site improvements would be compatible with the existing and planned business park and industrial land uses (i.e., CD-BP and CD-LI) north and west of the Project site.

Areas to the west of the Project site are comprised of undeveloped land and rural density residential homes. These areas are planned by the General Plan and MVAP for rural residential land uses (RC-VLDR). The Building E Site is adjacent to this area and its proposed development is designed to include a landscaped manufactured slope, oriented toward the Building E Site, and fencing to provide physical separation and buffering from off-site properties to the west. In addition, a retaining wall is proposed to wrap around the southwest corner of the Building E Site development pad. Furthermore, the Project would not result in any substantial adverse effects to the rural residential areas to the west

of the Project site after the application of mandatory regulatory requirements and the inclusion of the mitigation measures recommended by this EIR. Areas to the south of the Project site are scattered rural residences, business enterprises, and undeveloped land. The Project incorporates design features such as screen walls/noise barriers, landscaped slopes, and landscape screening to provide a physical buffer between the Project and the existing and planned rural residential land uses to the south of the Project site. The Project site is already planned by the General Plan and MVAP for business park "CD-BP" and light industrial "CD-LI" land uses, and the Project's proposed redesignation of the entire site to the CD-LI land use category and the development of two warehouse buildings would result in a similar edge condition at the southern boundary than would occur under the existing MVAP designations. Furthermore, the Project would not result in any substantial adverse effects to the rural residential areas to the south of the Project site after the application of mandatory regulatory requirements and the inclusion of the mitigation measures required by this EIR. Because the Project would not expose the rural residential land uses located south of the Project site to substantial adverse environmental effects during construction or long-term operation, the Project would not be incompatible with the abutting rural residential uses.

Based on the foregoing, the Project would be compatible with existing and planned surrounding land uses. Impacts would be less than significant.

Planning Threshold d) ***Would the Project be consistent with the land use designations and policies of the Comprehensive General Plan (including those of any applicable Specific Plan)?***

The Project would not conflict with any policies of the Riverside County General Plan or the MVAP and the Project site is not located within the boundaries of any Specific Plan. The Project would amend the General Plan and MVAP to change the land use designation of the Building E Site and a portion of the Building D Site from "Community Development-Business Park (CD-BP)" to "Community Development-Light Industrial (CD-LI)," so that the entirety of both Sites is designated for CD-LI land uses. Refer to the more detailed discussion provided in the impact analysis under Land Use Threshold (a). With Riverside County's approval of the proposed General Plan Amendments proposed for the Building D Site and the Building E Site, the Project would be consistent with the land use designations of the General Plan and MVAP, and as such, impacts would be less than significant.

Planning Threshold e) ***Would the Project disrupt or divide the physical arrangement of an established community (including a low-income or minority community)?***

The Project site consists of mostly vacant land and is located within a developing area of the County of Riverside that is designated for employment generating land uses. The area immediately to the west of the Project site contains rural-density residences and vacant land. The area to the north of the Project site includes a large industrial warehouse building and undeveloped land, and is physically separated

from the Project site by Oleander Avenue. The area to the east of the Project site includes vacant, undeveloped land. The area south of the Project site includes scattered rural residential homes, business enterprises, and vacant undeveloped land. The proposed Project would effectively serve as an extension of existing and planned development patterns to the north and west. Further, the Project does not provide through-access to any surrounding land use; therefore, the Project would not divide or isolate any adjacent land use from surrounding areas/communities. The Project proposes to improve Ellsworth Street between the Building D Site and the Building E Site, which would improve transportation access between the rural uses located south of the Project site, and Oleander Avenue to the north. Based on the foregoing, the Project would not physically divide an established community. The Project's proposed improvements to a segment of Ellsworth Street would help to improve transportation access connections in the community. No impact would occur.

4.10.4 CUMULATIVE IMPACT ANALYSIS

The Project would result in a substantial alteration to the Project site's existing land use, from primarily vacant land to two business park warehouse buildings. Other development projects in the vicinity of the Project site are resulting in similar, substantial alterations to the existing land use environment, for example, converting vacant or under-developed agricultural, residential, and commercial properties into industrial business parks, warehouse distribution centers, shopping centers, and residential communities. The Project's contribution to the transformation of the existing land use environment is considered to be cumulatively considerable.

The Project site is located in the SOI of the City of Perris. The City of Perris has not assigned land use or pre-zoning designations to any property in their SOI. Therefore, it is not possible for the Project or other development projects located within the SOI to adversely impact Perris' planned use of land within their SOI and a substantial adverse cumulative impact would not occur.

The Project would not result in conflicts with surrounding land uses and zoning and there are no other development projects proposed in the immediate vicinity of the Project site that would contribute to land use and zoning conflicts with parcels that surround the Project site. Furthermore, the Project would be consistent with applicable land use policies and regulations of the County General Plan (refer to *Technical Appendix M*). Therefore, there is no potential for the Project to contribute to cumulative effects related to land use/zoning incompatibilities on nearby properties.

The Project site does not provide access to established communities. Therefore, development of the Project site in conjunction with other development in the cumulative study area would not contribute to the isolation of any established communities or residences from neighboring communities. As such, the Project has no potential to result in cumulatively considerable impacts associated with the physical arrangement of an established community.

4.10.5 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Land Use

Threshold (a) for the Building D Site and the Building E Site: Significant Direct and Cumulatively Considerable Impact. Although the Industrial Park land use designation proposed by the Project would not substantially differ from the Industrial Park and Business Park land use designations that are applied to the property by the Riverside County General Plan and Mead Valley Area Plan, the Project site is mostly vacant and undeveloped under existing conditions. Therefore, the proposed development of two warehouse buildings on the site would result in a substantial change to the site's existing land use.

Threshold (b) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project proposes the development of land within the City of Perris' Sphere of Influence, but because the City of Perris has not applied any land use or pre-zone designations to the Project site, the Project would not affect the City's planned use of the land.

Planning

Threshold (a) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project proposes to change the zoning designations on portions of the Building D Site and Building E Site from R-R-1/2, R-R, M-M, to I-P. The change in zoning designation would result in less-than-significant impacts as analyzed throughout the EIR. Development on the property would be consistent with the proposed I-P zoning designation.

Threshold (b) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would not result in conflicts with the existing, surrounding zoning designations, which are A-1-1, RR-1/2, I-P, M-M, and M-SC zoning designations located north, east, and south of the Project site. The Project includes design features (e.g., an open space buffers, screen walls, and landscaping) to ensure compatibility with the existing residentially zoned areas to the west and south of the Project site.

Threshold (c) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would be compatible with the existing and planned Business Park and Light Industrial land uses located north and east of the Project site. The Project includes design features (e.g., landscaped manufactured slopes, walls and fencing, and landscaping screening) to ensure compatibility with the existing and planned rural residential land uses to the west and south of the Project site.

Threshold (d) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would be consistent with the land use designations and applicable policies of the Riverside County General Plan and the Mead Valley Area Plan.

Threshold (e) for the Building D Site and the Building E Site: No Impact. The Project would not physically divide an established community. The Project's improvements to a segment of Ellsworth Street would improve roadway connections in the local area.

4.10.6 MITIGATION

Refer to all mitigation measures presented in this EIR, which address the Project's significant impacts associated with a change in the site's existing land use (primarily vacant) to a developed property containing two warehouse buildings. In instances where significant impacts are identified in this EIR for the Project's construction and/or operational phases, mitigation measures are recommended in each applicable subsection of this EIR, where mitigation is feasible.

4.10.7 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Land Use

Threshold (a): Significant and Unavoidable Direct and Cumulatively Considerable Impact. Mitigation is not available to reduce all of the Project's significant environmental effects to less-than-significant levels, which would be caused by the proposed change in the site's existing land use (primarily vacant land) to two warehouse buildings and associated site improvements. Specifically, the Project would result in significant unavoidable impacts under the subject areas of air quality, noise, and traffic, even with adherence to mandatory regulatory requirements and the application of feasible mitigation measures identified in this EIR. Thus, the proposed alteration of the site from a primarily vacant, undeveloped property to a developed property containing two warehouse buildings is considered a substantial, adverse change; the Project's land use impact is significant and unavoidable.

LEGEND:

▲ Noise Measurement Locations

Source(s): Urban Crossroads (01-31-2017)

Figure 4.11-1

NOT TO SCALE

NOISE MEASUREMENT LOCATIONS

C. Sound Propagation

When sound propagates over a distance, it changes in level and frequency content. The way noise reduces with distance depends on the following factors.

1. Geometric Spreading

Sound from a localized source (i.e., a stationary point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path and hence can be treated as a "line source," which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source. (Urban Crossroads, Inc., 2017b, p. 12)

2. Ground Absorption of Noise

To account for the ground-effect attenuation (absorption) of noise, two types of site conditions are commonly used in traffic noise models: soft site and hard site conditions. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receptor, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receptor such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance from a line source. (Urban Crossroads, Inc., 2017b, pp. 12-13)

3. Atmospheric Effects

Receptors located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Sound levels can be increased at large distances (e.g., more than 500 ft.) due to atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors that may affect noise levels include air temperature, humidity, and turbulence. (Urban Crossroads, Inc., 2017b, p. 13)

4. Shielding

A large object or barrier in the path between a noise source and a receptor can substantially attenuate noise levels at the receptor. The amount of attenuation provided by shielding depends on the size of the barrier and the frequency content of the noise source. Shielding by trees and other such vegetation typically only has an "out of sight, out of mind" effect. That is, the perception of noise level tends to decrease when vegetation blocks the line-of-sight to nearby residents. However, for vegetation to provide a substantial, or even noticeable, noise reduction, the vegetation area must be at least 15 feet in height, 100 feet wide and dense enough to completely obstruct the line-of sight between the source

and the receiver. This size of vegetation may provide up to 5 dBA of noise reduction. (Urban Crossroads, Inc., 2017b, p. 13)

D. Traffic Noise Prediction

Vehicle noise is a combination of the noise produced by the engine, exhaust, and tires on the roadway. Per the Federal Highway Administration's (FHWA) *Highway Traffic Noise Analysis and Abatement Policy and Guidance*, the level of traffic noise depends on three primary factors: 1) the volume of the traffic, 2) the speed of the traffic, and 3) the vehicle mix within the flow of traffic. Generally, the loudness of traffic noise is increased by heavier traffic volumes, higher speeds, and a greater number of trucks. A doubling of the traffic volume, if the speed and vehicle mix do not change, results in a noise level increase of 3 dBA. The vehicle mix on a given roadway may also influence community noise levels. As the number of medium and heavy trucks increases and becomes a larger percentage of the vehicle mix, adjacent noise level impacts will increase. (Urban Crossroads, Inc., 2017b, p. 13)

E. Community Response to Noise

A variety of reactions can be expected from people exposed to any given noise environment. Surveys have shown that about ten percent of the people exposed to traffic noise of 60 dBA will report being highly annoyed with the noise, and each increase of one dBA is associated with approximately two percent more people being highly annoyed. When traffic noise exceeds 60 dBA or aircraft noise exceeds 55 dBA, people may begin to complain. Despite this variability in behavior on an individual level, the population can be expected to exhibit the following responses to changes in noise levels: a) an increase or decrease of 1 dBA cannot be perceived except in carefully controlled laboratory experiments, b) a change of 3 dBA is considered barely perceptible, and c) changes of 5 dBA or more are considered readily perceptible. (Urban Crossroads, Inc., 2017b, pp. 14-15)

F. Vibration

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 human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. (Urban Crossroads, Inc., 2017b, p. 15)

Ground-borne vibrations may be described by amplitude and frequency. Vibration is usually expressed in peak particle velocity (PPV) in inches per second (in/sec) and discussed in decibel (dB) units 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. Although PPV is appropriate for evaluating the potential for building damage, it is not always suitable for evaluating human response (annoyance). It takes some time for the human body to respond to vibration signals. In a sense, the human body responds to average vibration amplitude often described as the root-mean-square (RMS). The RMS of a signal is the average of the squared amplitude of the

signal, typically calculated over a 1-second period. The RMS velocity is often expressed in decibel notation as vibration decibels (VdB), which serves to reduce the range of numbers used to describe human response to vibration. (Urban Crossroads, Inc., 2017b, p. 15)

The background vibration-velocity level in residential areas is generally 50 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 range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings. (Urban Crossroads, Inc., 2017b, pp. 15-16)

4.11.2 EXISTING NOISE CONDITIONS

To assess existing noise levels, 24-hour noise level measurements were taken at seven (7) noise sensitive receiver locations in the Project study area. The receiver locations were selected by Urban Crossroads, Inc. to describe and document the existing noise environment within the Project study area. To fully describe the existing noise conditions, noise level measurements were collected by Urban Crossroads, Inc. from Tuesday, March 31 to Wednesday, April 1, 2015. (Urban Crossroads, Inc., 2017b, p. 27) The noise measurement locations and boundary of the study area are identified in Figure 4.11-1, *Noise Measurement Locations*.

The hourly noise levels were measured during typical weekday conditions over a 24-hour period. By collecting individual hourly noise level measurements, it is possible to describe the daytime and nighttime hourly noise levels and calculate the 24-hour CNEL. To describe the existing noise environment, it is not necessary to collect measurements at each individual building or residence in the Project vicinity, because each receiver measurement represents a group of buildings that share acoustical equivalence. In other words, an individual receiver shares similar shielding, terrain, and geometric relationship to the reference noise source as abutting receivers. (Urban Crossroads, Inc., 2015a, p. 27) The seven sensitive receiver locations shown on Figure 4.11-1 are representative of all locations that have the potential to be most affected by the proposed Project's construction and operational noise.

A. Existing Ambient Noise Environment

Table 4.11-1, *24-Hour Ambient Noise Level Measurements*, identifies the hourly daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) noise levels at each noise level measurement location. To describe the existing ambient noise environment, the noise measurements presented below focus on the average or equivalent sound levels (Leq). The Leq represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. (Urban Crossroads, Inc., 2017b, p. 29) Refer to Appendix 5.2 of *Technical Appendix I* for the noise measurement worksheets used by Urban Crossroads, Inc. to calculate the noise levels reported in Table 4.11-1:

- Location L1: Location L1 represents the noise levels at the northwest corner of Corson Avenue and Day Street near existing residential homes, northwest of the Project site. Homes in this area have a General Plan Land Use Designation of "Rural Community-Very Low Density Residential (RC-VLDR)" and a zoning designation of "Light Agriculture (A-1-1)." The noise level measurements collected show an overall 24-hour exterior noise level of 58.4 dBA CNEL. The hourly noise levels measured at location L1 ranged from 44.5 to 63.6 dBA Leq during the daytime hours and from 41.8 to 47.5 dBA Leq during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 56.4 dBA Leq with an average nighttime noise level of 45.2 dBA Leq. (Urban Crossroads, Inc., 2017b, p. 29)

- Location L2: Location L2 represents the noise levels along Day Street south of Burch Street at existing residential homes located west of the Project site. Homes in this area have a General Plan Land Use Designation of "Rural Community-Low Density Residential (RC-LDR)" and a zoning designation of "Rural Residential, ½-acre Minimum (R-R-½)." The noise level measurements collected show an overall 24-hour exterior noise level of 61.2 dBA CNEL. The hourly noise levels measured at location L2 ranged from 51.6 to 63.7 dBA Leq during the daytime hours and from 45.3 to 54.3 dBA Leq during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 58.2 dBA Leq with an average nighttime noise level of 51.7 dBA Leq. (Urban Crossroads, Inc., 2017b, p. 29)

- Location L3: Location L3 represents the noise levels southwest of the Project site along Nance Street adjacent to existing residential homes. Homes in this area have a General Plan Land Use Designation of "RC-VLDR" and a zoning designation of "A-1-1." The 24-hour CNEL indicates that the overall exterior noise level is 57.6 dBA CNEL. At location L3 the background ambient noise levels ranged from 39.6 to 63.3 dBA Leq during the daytime hours to levels of 39.7 to 46.3 dBA Leq during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 56.1 dBA Leq with an average nighttime noise level of 57.6 dBA Leq. (Urban Crossroads, Inc., 2017b, p. 29)

- Location L4: Located at the future southwest property line of the Building D Site, location L4 represents the existing noise levels adjacent to existing residential homes along Redwood Drive. The area of Location L4 has a General Plan Land Use Designation of "RC-VLDR" and a zoning designation of "Rural Residential (R-R)." The noise level measurements collected show an overall 24-hour exterior noise level of 56.8 dBA CNEL. The hourly noise levels measured at location L4 ranged from 40.8 to 61.8 dBA Leq during the daytime hours and from 42.6 to 47.2 dBA Leq during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 55.9 dBA Leq with an average nighttime noise level of 44.6 dBA Leq. (Urban Crossroads, Inc., 2017b, p. 29)

- Location L5: Location L5 represents the noise levels on Old Oleander Avenue, northeast of the Project site near an existing cell tower with electrical generators and a residential home. The area of location L5 has a General Plan Land Use Designation of "Community Development-Light Industrial (CD-LI)" and a zoning designation of "Manufacturing-Service Commercial (M-SC)." The noise level measurements collected show an overall 24-hour exterior noise level of 66.5 dBA CNEL. The hourly noise levels measured at location L5 ranged from 57.3 to 67.3 dBA Leq during the daytime hours and from 51.4 to 62.6 dBA Leq during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 63.0 dBA Leq with an average nighttime noise level of 58.2 dBA Leq. (Urban Crossroads, Inc., 2017b, p. 29)

- Location L6: Location L6 represents the noise levels at the northwest corner of Markham Street and Decker Road near existing residential homes. The homes in this area have a General Plan Land Use Designation of "RC-VLDR" and a zoning designation of "R-R." The noise level measurements collected show an overall 24-hour exterior noise level of 68.2 dBA CNEL. The hourly noise levels measured at location L6 ranged from 60.8 to 65.9 dBA Leq during the daytime hours and from 53.2 to 64.2 dBA Leq during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 63.7 dBA Leq with an average nighttime noise level of 60.6 dBA Leq. (Urban Crossroads, Inc., 2017b, pp. 29-30)

- Location L7: Location L7 represents the noise levels along Markham Street near existing residential homes, south of the Project site. The homes in this area have a General Plan Land Use Designation of "RC-VLDR" and a zoning designation of "Industrial Park (I-P)." The 24-hour CNEL indicates that the overall exterior noise level is 73.9 dBA CNEL. At location L7 the background ambient noise levels ranged from 66.0 to 72.1 dBA Leq during the daytime hours to levels of 59.7 to 69.5 dBA Leq during the nighttime hours. The energy (logarithmic) average daytime noise level was calculated at 69.5 dBA Leq with an average nighttime noise level of 66.3 dBA Leq. (Urban Crossroads, Inc., 2017b, p. 30)

Table 4.11-1 provides the (energy average) noise levels used to describe the daytime and nighttime ambient conditions. These daytime and nighttime energy average noise levels represent the average of all hourly noise levels observed during these time periods expressed as a single number. Appendix 5.2 of *Technical Appendix I* provides a summary of the hourly noise levels for each hour as well as the minimum and maximum noise level observed during the daytime and nighttime period. The background ambient noise levels in the Project study area are dominated by the transportation related noise associated with the arterial roadway network and March Air Reserve Base. This includes auto, heavy truck, and aircraft activities near the noise level measurement locations. Secondary background ambient noise is also included in the noise level measurements from existing stationary noise sources in the Project study area, such as the existing high-cube warehouse/distribution center use located northeast of the Project site along Oleander Avenue. (Urban Crossroads, Inc., 2017b, p. 30)

B. Existing Ground-borne Vibration

The Project site is located approximately 0.4-mile west of I-215, 5.8 miles southwest of SR-60, and approximately 1.1 miles west of the nearest runway at the March Air Reserve Base (MARB). Vehicular and airport activities are not considered sources of substantial ground-borne vibration. Due to the rapid drop-off rate of ground-borne vibration and the short duration of the associated events, vehicular/air traffic-induced ground-borne vibration is rarely perceptible beyond the roadway/runway right-of-way. Given the distances between the Project site and potential vibration sources, the Project site does not experience substantial ground-borne vibration under existing conditions.

C. Airport Noise

The Project site is located within the March Air Reserve Base Airport Influence Area boundary. As depicted on Exhibit MA-4 of the *March Air Reserve Base/Inland Port Airport Land Use Compatibility Plan*, the Project site is located outside of the 60 CNEL range from aircraft noise and is not subject to substantial noise from operations at the March Air Reserve Base. (RCALUC, 2015)

D. Existing Noise Study Standards, Policies, and Regulations

Federal, state, and local agencies regulate different aspects of environmental noise. Federal and State agencies generally set noise standards for mobile sources such as aircraft and motor vehicles, while regulation of stationary sources is left to local agencies. Local noise standards and guidelines are often based on the broader guidelines established by State and Federal agencies. A description of the regulatory setting for the Project study area's existing noise setting is provided below.

1. State of California Green Building Standards Code

The 2014 State of California Green Building Standards Code contains mandatory measures for non-residential building construction in Section 5.506 on Environmental Comfort. These noise standards are applied to new construction in California for the purpose of controlling interior noise levels resulting from exterior noise sources. The regulations specify that acoustical studies must be prepared when non-residential structures are developed in areas where the exterior noise levels exceed 65 dBA CNEL, such as within a noise contour of an airport, freeway, railroad, and other areas where noise contours are not readily available. If the development falls within an airport or freeway 65 dBA CNEL noise contour, the combined sound transmission class (STC) rating of the wall and roof-ceiling assemblies must be at least 50. For those developments in areas where noise contours are not readily available and the noise level exceeds 65 dBA Leq for any hour of operation, a wall and roof-ceiling combined STC rating of 45, and exterior windows with a minimum STC rating of 40 are required according to Section 5.507.4.1. (Urban Crossroads, Inc., 2015a, p. 17)

2. State of California Noise Requirements

The State of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards, and provides guidance for local land use compatibility. State law requires that each county and city adopt a General Plan that includes a

Noise Element which is to be prepared per guidelines adopted by the Governor's Office of Planning and Research. The purpose of the Noise Element is to limit the exposure of the community to excessive noise levels. (Urban Crossroads, Inc., 2017b, p. 17)

3. County of Riverside Noise Element

The County of Riverside has adopted a Noise Element of the General Plan to control and abate environmental noise, and to protect the citizens of the County from excessive exposure to noise. The Noise Element identifies two separate types of noise sources: 1) transportation and 2) stationary, and establishes guidelines for acceptable transportation and stationary community noise levels (Urban Crossroads, Inc., 2017b, p. 18).

❑ Transportation Noise Standards

The Noise Element specifies the maximum noise levels allowable for new developments in unincorporated Riverside County impacted by transportation noise sources such as arterial roads, freeways, airports, and railroads. The Noise Element includes standards for land use compatibility for community noise exposure. For single family residential areas, the Noise Element states that the exterior noise levels should remain below 65 dBA CNEL, and the interior noise levels should remain below 45 dBA CNEL. For industrial uses, the Noise Element's *Land Use Compatibility for Community Noise Exposure* matrix sets guidelines per the predicted noise exposure level (see Table 4.11-2, *Land Use Compatibility for Community Noise Exposure*). According to the noise compatibility matrix, an ambient noise level of up to 75 dBA CNEL is considered *normally acceptable* for industrial uses. (Urban Crossroads, Inc., 2017b, p. 18)

❑ Stationary Noise Standards

The County of Riverside has set exterior noise limits to control idling trucks, delivery truck activities, parking, backup alarms, as well as loading and unloading of dry goods associated with projects like the proposed Project. The County considers noise generated by the use of motor vehicles to be a stationary noise source when operated on private property such as at a truck terminal or warehousing facility. These facility-related noises, as projected to any portion of any surrounding property containing a habitable dwelling, hospital, school, library or nursing home, must not exceed the following worst-case noise levels. (Urban Crossroads, Inc., 2017b, p. 20)

Policy N 4.1 of the Noise Element sets an exterior noise limit not to be exceeded for a cumulative period of more than ten minutes in any hour of 65 dBA Leq for daytime hours of 7:00 a.m. to 10:00 p.m., and 45 dBA Leq during the noise-sensitive nighttime hours of 10:00 p.m. to 7:00 a.m. These stationary-source noise level standards are consistent with the County of Riverside Office of Industrial Hygiene guidelines for noise studies within the County. Policy N 4.8 of the Noise Element requires that loading docks of industrial land uses minimize the potential noise impacts of vehicles on the site, as well on the adjacent land uses. (Urban Crossroads, Inc., 2017b, p. 20) The County of Riverside operational noise standards used in the noise impact analysis presented in Table 4.11-3, *Operational Noise Standards, and Technical Appendix I*. (Urban Crossroads, Inc., 2017b, p. 20)

❑ Construction Noise Standards

To control noise impacts associated with construction activities, Riverside County has established limits to permitted construction hours. Section 9.52.020 of the County's Noise Regulation ordinance, (see Appendix 3.1 of *Technical Appendix I*), indicates that noise associated with any private construction activity located within one-quarter of a mile from an inhabited dwelling is considered exempt between the hours of 6:00 a.m. and 6:00 p.m., during the months of June through September, and 7:00 a.m. and 6:00 p.m., during the months of October through May. Neither the County's General Plan nor Municipal Code establish numeric maximum acceptable construction source noise levels at potentially affected receivers, which would allow for a quantified determination of what CEQA constitutes as a substantial temporary or periodic noise increase. To allow for a quantified determination of what the Noise Control Ordinance constitutes as noise that may jeopardize the health, safety, or general welfare of Riverside County residents and degrade their quality of life due to Project construction activity, relevant quantified stationary source noise standards established in the General Plan Policy N 4.1, were used in the noise impact analysis (*Technical Appendix I*) to assess the Project construction noise levels at nearby sensitive receivers, Therefore, the daytime noise level standard of 65 dBA Leq is used to evaluate the potential Project-related construction noise impacts. (Urban Crossroads, Inc., 2017b, pp. 20-21)

❑ Construction Vibration Standards

Typically, the human response at the perception threshold for vibration includes annoyance in residential areas when vibration levels expressed in VdB approach 75 VdB. The County of Riverside identifies a vibration perception threshold of 0.01 in/sec. The County of Riverside does not have vibration standards for temporary construction, but the County's General Plan Noise Element does describe the human reaction to typical vibration levels. Vibration levels with peak particle velocity of 0.787 inches per second are considered readily perceptible and above 0.1968 in/sec are considered annoying to people in buildings. Further, County of Riverside General Plan Policy 15.3 identifies a motion velocity perception threshold for vibration due to passing trains of 0.01 in/sec over the range of one to 100 hertz (Hz). For the purposes of the vibration analysis presented below and in *Technical Appendix I*, the perception threshold of 0.01 in/sec was used to assess the potential impacts due to Project construction at nearby sensitive receiver locations. (Urban Crossroads, Inc., 2017b, p. 21)

❑ Blasting Regulations

The construction of the proposed Project would include blasting of hard rock areas. Because the County of Riverside General Plan and Municipal Code do not identify specific construction noise level limits for blasting activities, the Office of Surface Mining Reclamation and Enforcement (OSMRE) and the Code of Federal Regulations (CFR), *Airblast Limits* (30 CFR816.67(b) was used by Urban Crossroads in the noise impact analysis (*Technical Appendix I).* Section 816.2 of Title 30 of the CFR indicates that the blasting regulations are "*intended to insure that all surface mining activities are conducted in a manner which preserves and enhances environmental and other values in accordance with the Act.*" While the OSMRE regulates mining activities, the blasting activities at the Project site are representative of surface mining activities which, to satisfy CEQA guidelines, must demonstrate that they do not adversely affect the existing environment. Therefore, Urban Crossroads,

Inc. applied OSMRE blasting regulations to the blasting activities anticipated at the Project site. For mining operations, which require larger blasts than that of the proposed Project, the lowest noise level threshold identified in the CFR is a maximum noise level of 129 dBA Lmax for blasting activity measured *"at the location of any dwelling, public building, school, church, or community or institutional building outside of the permit area…"* Urban Crossroads, Inc. determined that the Lmax threshold used in the noise impact analysis (*Technical Appendix I*) is suitable for single-event noise levels, such as blasting activities, since other noise regulations in Leq (energy average), for example, average out a reference noise level over a given time period which reduces the single-event noise level over a longer period of time. The Lmax; therefore, allows for the shorter-duration single-event noise levels to be evaluated against an appropriate threshold. (Urban Crossroads, Inc., 2017b, pp. 21-22)

The *Caltrans Transportation and Construction Vibration Guidance Manual* vibration velocity levels for various building materials' susceptibility to damage were used by Urban Crossroads, Inc. to evaluate the potential vibration impacts due to blasting at the Project site. For residential structures, the threshold of damage for vibration is approximately 3.0 in/sec (PPV) for cosmetic cracking and damage. (Urban Crossroads, Inc., 2017b, p. 22)

4.11.3 METHODOLOGY FOR CALCULATING PROJECT-RELATED NOISE IMPACTS

A. Construction Noise

The types and numbers of heavy equipment that the Project Applicant expects to use during construction activities are listed in Table 3-1, *Construction Equipment Assumptions*. In order to assess the expected noise levels that would be generated by the Project's construction activities, Urban Crossroads, Inc. collected reference noise level measurements at construction sites at which the same types of construction were operating. Table 4.11-6, *Construction Reference Noise Levels*, provides a summary of the 16 construction reference noise level measurements collected by Urban Crossroads, Inc. All construction noise level measurements presented in Table 4.11-6 were adjusted by Urban Crossroads, Inc. to describe a common reference distance of 50 feet. Refer to Appendix 10.1 of *Technical Appendix I* for a more detailed discussion of construction reference noise levels. (Urban Crossroads, Inc., 2017b, pp. 71-72)

Noise levels diminish with distance from the noise source at a rate of 6 dBA per doubling of distance. For example, a noise level of 80 dBA measured at 50 feet from the noise source to the receiver would be reduced to 74 dBA at 100 feet from the source to the receiver, and would further be reduced to 68 dBA at 200 feet from the source to the receiver. (Urban Crossroads, Inc., 2017b, p. 72) However, 6 dBA is based typically over a hard surface or water. The doubling distance of 7.5 dBA is more typical over softer surfaces (e.g. dirt, grass, bushes, etc.).

❑ Blasting Noise and Blasting Vibration

Construction of the proposed Project would include blasting of hard rock areas. The intensity of the noise and vibration impacts associated with rock blasting depends on location, size, material, and shape of the rock, and the methods used to crack the rock. While a blasting contractor can design the

blasts to stay below a given vibration level that could cause damage to nearby structures, it is difficult to design blasts that produce noise levels which are not perceptible to receivers in the vicinity of the blast site. The noise produced by blasting activities is referred to as an airblast, or a pressure wave that is generated when explosive energy in the form of gases escape from the detonating blast holes. Much like a point source, airblasts radiate outward in a spherical pattern and attenuate with each doubling of distance from the blast location. (Urban Crossroads, Inc., 2017b, p. 86)

Blasting activities generally include: the pre-drilling of holes in the hard rock area; preparation and placement of the charges in the drilled holes; a pre-blast horn signal; additional pre-blast horn signals immediately prior to the blast; and the blast itself. An additional horn signal is sounded to indicate the "all clear" after the blast and the blasting contractor has inspected the blasting area. During the blast, which occurs over a few seconds, the noise from the blast itself starts with a cracking sound from the detonator, located at a distance from the charges, and ends with the low crackling sound from each charge as they are subsequently set off. It is important to note that no other construction equipment would be operating during the blast in the immediate area, and would commence once the blasting contractor indicates it is safe to do so. (Urban Crossroads, Inc., 2017b, p. 86)

As part of the noise impact analysis, Urban Crossroads, Inc. analyzed a worst-case scenario which would include fifteen (15) sections of hard rock area of approximately 400 drill holes per blast over a two-month period. This amounts to approximately fifteen separate blasting events. Using conventional blasting methods, there would be one blast near the edge of the southern property line using holes as deep as 15 to 20 feet. The explosive charges would be placed in each hole to fragment the rocks into smaller, crushable pieces. The charges would be made up of ammonium nitrate/fuel oil (ANFO) which consists of 94 percent ammonium nitrate and 6 percent diesel fuel. Further, the blasts would be single-event noise sources which would occur over a few seconds, with multiple small blasts in each hole occurring milliseconds apart from each other. Once the blast is completed, normal construction grading activities would resume. An electric rock crusher, powered by a 300 horsepower generator, would later break down the fragmented rocks at the location of the Project site. (Urban Crossroads, Inc., 2017b, pp. 86-87)

To evaluate the potential noise levels from blasting activities during Project construction, Urban Crossroads, Inc. collected a reference noise level measurement of a single blast performed by the same contractor that the Project Applicant intends to use for blasting at the Project site, California Blasting and Drilling. The reference noise level measurement was collected on March 15, 2016, at a residential construction site in Chatsworth, CA. At a reference distance of 370 feet, the blasting noise levels reached 81.5 dBA Lmax for one (1) second over a total duration of seven (7) seconds for all blasts included in the event (Refer to Table 4.11-7, *Blasting Reference Noise Levels).* The reference blast measurement represents a larger blasting area and greater amount of ANFO explosive material than what is planned at the Project site. In addition, due to the distance of roughly 400 feet to nearby residential homes of the reference blast site, some debris was allowed to be cast into the air and the additional noise associated with this debris is included in the reference noise level. Debris due to blasting at the Project site is not anticipated to be cast into the air per conversations with the blasting

contractor, and therefore, the reference noise level measurement may conservatively overstate the noise levels of the Project site blasting activities. (Urban Crossroads, Inc., 2017b, p. 87)

B. Transportation-Related Noise

1. Federal Highway Administration Traffic Noise Prediction Model

The estimated roadway noise impacts from vehicular traffic were calculated using a computer program that replicates the FHWA Traffic Noise Prediction Model- FHWA-RD-77-108. The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). In California, the national REMELs are substituted with the California Vehicle Noise (Calveno) Emission Levels. Adjustments are then made to the REMEL to account for: 1) the roadway classification (e.g., collector, secondary, major or arterial), 2) the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), 3) the total average daily traffic (ADT), 4) the travel speed, 5) the percentages of automobiles, medium trucks, and heavy trucks in the traffic volume, 6) the roadway grade, 7) the angle of view (e.g., whether the roadway view is blocked), 8) the site conditions ("hard" or "soft" relates to the absorption of the ground, pavement, or landscaping), and 9) the percentage of total ADT which flows each hour throughout a 24-hour period. (Urban Crossroads, Inc., 2017b, p. 33)

2. Off-Site Traffic Noise Prediction Model Inputs

Table 4.11-8, *Off-Site Roadway Parameters*, presents the roadway parameters used to assess the Project's off-site transportation noise impacts. Table 4.11-8 identifies the 12 study area roadway segments, the distance from the centerline to adjacent land use based on the functional roadway classifications according to the County of Riverside General Plan Circulation Element, and the posted vehicle speeds. For the purpose of the site-specific noise impact analysis (*Technical Appendix I*), soft site conditions were used to analyze the traffic noise impacts within the Project study area. Soft site conditions account for the sound propagation loss over natural surfaces such as normal earth and ground vegetation. (Urban Crossroads, Inc., 2017b, p. 33)

To quantify off-site traffic noise levels, the Project's vehicular trips were assigned to the 12 study area roadway segments, based on the Project trip distribution and vehicle mix information contained in the site-specific traffic impact analysis (*see Technical Appendix J*). Refer to *Technical Appendix J* for information on existing and future traffic volumes, Project-related traffic volumes, and time of day vehicle splits for cars, medium-sized trucks, and heavy trucks. While the traffic volumes presented in *Technical Appendix J* are expressed as Passenger Car Equivalent (PCE) trips, the site-specific noise impact analysis (*Technical Appendix I*) relies on the net Project trips to accurately account for the effect of individual truck trips on the study area roadway network. (Urban Crossroads, Inc., 2017b, pp. 33, 35) Please note that calculations of the Project's traffic-related noise presented in *Technical Appendix I* and herein were prepared prior to the Project Applicant's decision to reduce the size of Building E Site to its current configuration (which reduced Project-generated traffic volumes by approximately 12%); therefore, the Project's contributions to traffic noise are overstated herein by up to 12%.

To quantify the off-site noise levels, the Project related truck trips were added to the heavy truck category in the FHWA noise prediction model. The addition of the Project related truck trips increases the percentage of heavy trucks in the vehicle mix. This approach recognizes that the FHWA noise prediction model is influenced by the number of heavy trucks in the vehicle mix. The Project's truck trip-ends were assigned to the 12 off-site study area roadway segments based on the estimated Project truck trip distribution percentages. Using the Project truck trips in combination with the Project trip distribution, it is possible to calculate the number of additional Project truck trips and vehicle mix percentages for each of the study area roadway segments. (Urban Crossroads, Inc., 2017b, p. 35)

C. *Operational Noise*

The future building occupants of the proposed Project are unknown at the present time. The site-specific noise impact analysis (*Technical Appendix I*) assumes the Project would be operational 24 hours per day, seven days per week. Business operations would primarily be conducted within the enclosed buildings, with the exception of traffic movement, parking, and the loading and unloading of trucks at designated loading bays. The on-site Project related noise sources are expected to include: idling trucks, delivery truck activities, parking, backup alarms, as well as loading and unloading of dry goods. The site-specific noise impact analysis (*Technical Appendix I*) does not account for any special noise generators that may be needed to accommodate the needs of specific building users. Special noise generators may consist of outdoor compressors, air scrubbers, heavy materials handlings, HVAC units, emergency generators, etc. The site-specific noise impact analysis (*Technical Appendix I)* is intended to describe noise level impacts associated with the expected typical operational activities for high cube warehouse buildings at the Project site. (Urban Crossroads, Inc., 2017b, p. 55)

1. Reference Operational Noise Levels

Because the future building occupants of the proposed Project are unknown, the Project's operational noise levels were estimated based on reference noise level measurements of similar business park warehouse buildings. The reference noise levels are intended to describe the expected operational noise sources that may include idling trucks, delivery truck activities, parking, backup alarms, as well as loading and unloading of dry goods. To estimate off-site operational noise impacts, the following reference noise level measurements were collected at an existing building containing similar operational noise sources as the proposed Project. (Urban Crossroads, Inc., 2017b, p. 56)

Short-term reference noise level measurements were collected on Wednesday, January 7th, 2015, by Urban Crossroads, Inc. at the Motivational Fulfillment & Logistics Services distribution facility located at 6810 Bickmore Avenue in the City of Chino. The noise level measurements represent the typical weekday dry goods operation at a business park warehouse building with a loading dock area. Two reference noise level measurements were taken at this location, including entry gate activity and unloading/docking activity noise sources. Up to ten trucks were observed in the loading dock area including a combination of truck trailer semi-trucks, two-axle delivery trucks, and background forklift operations. (Urban Crossroads, Inc., 2017b, p. 56)

The entry gate activity noise level measurement was taken over a 15- minute period and represents multiple noise sources producing a reference noise level of 64.0 dBA Leq. The noise sources included at this measurement location account for the rattling and squeaking during normal opening and closing operations, the gate closure equipment, truck engines idling outside the entry gate, and background forklift backup alarm noise. The unloading/docking activity noise level measurement was taken over a 15- minute period and represents multiple noise sources taken from the center of loading dock activities generating a reference noise level of 67.2 dBA Leq. At this measurement location, the noise sources associated with employees unloading a docked truck container included the squeaking of the truck's shocks when weight was removed from the truck, employees playing music over a radio, as well as a forklift horn and backup alarm. In addition, during the noise level measurement, a truck entered the loading dock area and proceeded to reverse and dock in a nearby loading bay, adding truck engine and air brakes noise. (Urban Crossroads, Inc., 2017b, p. 56)

While the specific noise levels at the Project site will depend on the actual building users, the intensity, and the daytime/nighttime hours of operation, a reference noise level of 67.2 dBA Leq is used to describe the peak Project operational noise activity because it represents similar operational characteristics. The reference noise levels are intended to describe noise level impacts associated with the expected operations at the Project site and do not account for any special noise generators. (Urban Crossroads, Inc., 2017b, p. 57)

D. Ground-borne Vibration

Ground-borne vibration levels from automobile traffic are generally overshadowed by vibration generated by heavy trucks that roll over the same uneven roadway surfaces. However, due to the rapid drop-off rate of ground-borne vibration and the short duration of the associated events, vehicular traffic-induced ground-borne vibration is rarely perceptible beyond the roadway right-of-way, and rarely results in vibration levels that cause damage to buildings in the vicinity. However, while vehicular traffic is rarely perceptible, construction activities have the potential to result in varying degrees of temporary ground vibration, depending on the specific construction activities and equipment used. Ground vibration levels associated with various types of construction equipment are summarized in Table 4.11-9, *Vibration Source Levels for Construction Equipment.* Based on the representative vibration levels presented for various construction equipment types, it is possible to estimate the human response (annoyance) using the following vibration assessment methods defined by the FTA. (Urban Crossroads, Inc., 2017b, p. 39)

Based on the California Department of Transportation's *Transportation and Construction Vibration Guidance Manual*, it is unusual for damage to be caused to residential structures from the vibrations due to blasting activities as other agencies' (U.S. Bureau of Mines and the Office of Surface Mining and Reclamation Enforcement) maximum vibration level limits have been shown to not cause any damage to existing homes. The *Transportation and Construction Vibration Guidance Manual* provides the human perception thresholds for vibration from continuous events at a PPV level of 0.02 in/sec, and provides vibration velocity levels for various building materials susceptibility to damage.

For residential structures, the threshold of damage for vibration is approximately 3.0 in/sec (PPV) for cosmetic cracking and damage. (Urban Crossroads, Inc., 2017b, p. 88)

4.11.4 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant noise impact if the Project or any Project-related component would:

Airport Noise

a) *For a project located within 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, expose people residing or working in the project area to excessive noise levels;*

b) *For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.*

Railroad Noise

a) *Result in railroad noise.*

Highway Noise

a) *Result in highway noise.*

Other Noise

a) *Result in other noise.*

Noise Effects on or by the Project

a) *Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;*

b) *Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;*

c) *Result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;*

d) *Result in exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels.*

While the CEQA Guidelines and the County of Riverside General Plan Guidelines provide direction on noise compatibility and establish noise standards by land use type that are sufficient to assess the significance of noise impacts under *Noise Effects on or by the Project* Threshold (a), they do not define the levels at which increases are considered substantial for use under *Noise Effects on or by the Project Threshold* (b), (c) and (d) (Urban Crossroads, Inc., 2017b, p. 23). The standards used to evaluate significance in this EIR are explained below.

A. Noise-Sensitive Receivers

Noise level increases resulting from the Project are evaluated based on the guidance given in CEQA Guidelines Appendix G at the closest sensitive receiver locations. Under CEQA, consideration must be given to the magnitude of the increase, the existing ambient noise levels, and the location of noise-sensitive receivers, in order to determine if a noise increase represents a significant adverse environmental impact. This approach recognizes that there is no single noise increase that renders the noise impact significant. (Urban Crossroads, Inc., 2017b, p. 23) Therefore, the lead agency must determine when an increase is substantial, based on substantive evidence.

Because of the wide variation in individual thresholds of annoyance and differing individual experiences with noise, there is no completely satisfactory way to measure the subjective effects of noise or of the corresponding human reactions of annoyance and dissatisfaction. Thus, an important way of determining a person's subjective reaction to a new noise is the comparison of the noise to the existing environment to which one has adapted-the so-called ambient environment. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will typically be judged. The Federal Interagency Committee on Noise (FICON) developed guidance to be used for the assessment of project-generated increases in noise levels that take into account the ambient noise level. The FICON recommendations are based on studies that relate aircraft noise levels to the percentage of persons highly annoyed by aircraft noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, these recommendations are often used in environmental noise impact assessments involving the use of cumulative noise exposure metrics, such as the average-daily noise level (i.e., CNEL). For example, if the ambient noise environment is quiet (<60 dBA) and the new noise source greatly increases the noise levels, an impact may occur. Therefore, for the analysis herein, FICON is used. FICON identifies a readily perceptible 5 dBA or greater project-related noise level increase as a significant impact when the noise criteria for a given land use is exceeded. Per the FICON, in areas where the without project noise levels range from 60 to 65 dBA, a 3 dBA barely perceptible noise level increase appears to be appropriate for most people. When the without project noise levels already exceed 65 dBA, any increase in community noise louder than 1.5 dBA or greater is considered a significant impact if the noise criteria given in the Noise Element's Table N-1, *Land Use Compatibility for Community Noise Exposure* matrix for a given land use is exceeded, since the noise increase likely contributes to an existing noise exposure exceedance. Table 4.11-4, *Significance of Noise Impacts at Noise Sensitive Receivers*, provides a summary of the potential noise impact significance criteria, based on guidance from FICON. (Urban Crossroads, Inc., 2017b, pp. 23-24)

B. Non-Noise Sensitive Receivers

The County of Riverside General Plan Noise Element, Table N-1, *Land Use Compatibility for Community Noise Exposure* (Table 4.11-2) was used to establish the levels of significance for non-noise-sensitive land uses in the Project study area, such as Business Park and Industrial land uses. As shown on Table 4.11-2, the "*normally acceptable*" exterior noise levels for non-noise sensitive land uses is 70 dBA CNEL. Noise levels greater than 70 dBA CNEL are considered "*conditionally*

acceptable" according to the *Land Use Compatibility for Community Noise Exposure*. (Urban Crossroads, Inc., 2017b, p. 24)

To determine if Project-related traffic noise level increases are significant at off-site non-noise sensitive land uses, a readily perceptible 5 dBA and barely perceptible 3 dBA criteria are used herein. When the without Project noise levels at the non-noise-sensitive land uses are below the normally acceptable 70 dBA CNEL compatibility criteria, a readily perceptible 5 dBA or greater noise level increase is considered a significant impact. When the without Project noise levels are greater than the normally acceptable 70 dBA CNEL land use compatibility criteria, a barely perceptible 3 dBA or greater noise level increase is considered a significant impact since the noise level criteria is already exceeded. The noise level increases used to determine significant impacts for non-noise-sensitive land uses is generally consistent with the FICON noise level increase thresholds for noise-sensitive land uses but instead rely on the County of Riverside General Plan Noise Element, *Land Use Compatibility for Community Noise Exposure* normally acceptable 70 dBA CNEL exterior noise level criteria. Table 4.11-5, *Significance Criteria Summary*, provides a summary of the noise impact significance criteria. (Urban Crossroads, Inc., 2017b, p. 24)

Noise impacts shall be considered significant if any of the following occur as a direct result of the proposed Project.

1. Off-Site Traffic Noise

When the noise levels at existing and future noise-sensitive land uses (e.g. residential, etc.):

- Are less than 60 dBA and the Project creates a readily perceptible 5 dBA or greater Project related noise level increase; or

- Range from 60 to 65 dBA and the Project creates a barely perceptible 3 dBA or greater Project noise level increase; or

- Already exceed 65 dBA, and the Project creates a community noise level impact of greater than 1.5 dBA.

When the noise levels at existing and future non-noise-sensitive land uses (e.g. business park, industrial, etc.):

- Are less than the County of Riverside General Plan Noise Element, Table N-1, normally acceptable 70 dBA and the Project creates a readily perceptible 5 dBA or greater Project related noise level increase; or

- Are greater than the County of Riverside General Plan Noise Element, Table N-1, normally acceptable 70 dBA and the Project creates a barely perceptible 3 dBA or greater Project noise level increase.

2. *Operational Noise*

If Project-related operational (stationary source) noise levels exceed the exterior 65 dBA Leq daytime or 45 dBA Leq nighttime noise level standards at nearby sensitive residential land uses (County of Riverside General Plan, Policy N 4.1) (direct impact).

If the operational (stationary source) noise levels at nearby noise-sensitive receivers near the Project site:

- Are less than 60 dBA and the Project creates a readily perceptible 5 dBA or greater noise level increase (cumulatively considerable impact); or
- Range from 60 to 65 dBA and the Project creates a barely perceptible 3 dBA or greater noise level increase (cumulatively considerable impact); or
- Already exceed 65 dBA, and the Project creates a community noise level impact of greater than 1.5 dBA (cumulatively considerable impact).

3. *Construction Noise and Vibration*

If Project-related construction activities:

- Occur at any time other than the permitted hours of 6:00 a.m. and 6:00 p.m., during the months of June through September, and 7:00 a.m. and 6:00 p.m., during the months of October through May (County of Riverside Municipal Code, Section 9.52.020) and would create noise levels of greater than 45 dBA Leq at sensitive receivers;
- Create noise levels which exceed the County of Riverside 65 dBA Leq acceptable noise level threshold at the nearby sensitive receiver locations (based on the County of Riverside General Plan, Policy N 4.1).
- If short-term Project generated construction vibration levels exceed the County of Riverside acceptable vibration standard of 0.01 in/sec (RMS) at sensitive receiver locations (County of Riverside General Plan, Policy N 15.3).
- If noise due to blasting exceeds the Office of Surface Mining Reclamation and Enforcement and Code of Federal Regulations, Section 30 CFR 816.67(b), *Use of Explosives: Control of Adverse Effects* lowest maximum noise level standard of 129 dBA Lmax at nearby sensitive receiver locations (Urban Crossroads, Inc., 2017b, p. 26).
- If vibration due to blasting exceeds 3.0 in/sec. (PPV) at nearby sensitive receiver locations (*Caltrans Transportation and Construction Vibration Guidance Manual*) (Urban Crossroads, Inc., 2017b, p. 26).

4.11.5 IMPACT ANALYSIS

Airport Noise
Threshold a) For a project located within 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?

The Project site is located approximately 1.1 miles west of the nearest runway at the March Air Reserve Base (MARB). According to Exhibit MA-4, the Project site is exposed to less than 60 dBA CNEL from operations at the MARB, which is not considered excessive. (RCALUC, 2015, Exhibit MA-4) Furthermore, the Project proposes to develop the site with business park uses, which are not considered noise-sensitive receptors. According to the Riverside County General Plan, industrial and manufacturing uses are considered "*normally acceptable*" at noise levels up to 75 dBA CNEL (Riverside County, 2003a, Table N-1). Accordingly, the Project would not expose workers or visitors to the Project site to excessive airport-related noise. Impacts would be less than significant.

Airport Noise
Threshold b) For a project within the vicinity of a private airstrip, would the Project expose people residing or working in the project area to excessive noise levels?

The Project site is not located near any private airstrips (RCIT, 2015). The Riverside County Regional Medical Center (RCRMC) located in Moreno Valley at 26520 Cactus Avenue has a helipad for emergency medical purposes. However, a helipad is not an airstrip and helicopter noise would be intermittent and has no potential to expose potential future workers at the Project site to substantial noise. Therefore, the Project has no potential to expose people residing or working in the Project area to excessive noise levels. No impact would occur.

Railroad Noise
Threshold a) Would the Project result in railroad noise?

The Project does not include a rail component and would not utilize rail service. Accordingly, there is no potential for the Project to result in railroad noise. No impact would occur.

Highway Noise
Threshold a) Would the Project result in highway noise?

The Project site is located 0.4 mile west of I-215, which is the only major highway corridor in the Project vicinity (Google Earth Pro, 2015). The Project's contribution of traffic to I-215 would not reach the level that a measurable highway noise impacts would occur (Urban Crossroads, Inc., 2017b). Thus, a less than significant impact would occur.

Other Noise
Threshold a) Would the Project result in other noise?

The Project site does not contain any other aspects that would qualify as "other noise" that is not addressed by other thresholds. Accordingly, no impact would occur.

Noise Effects on or by the Project
Threshold a) Would the Project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?
Threshold b) Would the Project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?
Threshold c) Would the Project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

A. Short-Term Construction Noise

Construction activity associated with the proposed Project, especially activities involving heavy equipment, would create intermittent periods of noise when construction equipment is in operation and would cause a short-term increase in ambient noise levels. During Project construction, noise would be generated by a combination of trucks, power tools, concrete mixers, and portable generators during: 1) demolition; 2) grading; 3) underground utilities installation; 4) building construction; 5) landscaping; 6) paving and application of site finishes; and 7) application of architectural finishes. (Urban Crossroads, Inc., 2017b, p. 71)

Analysis of the Project's potential construction noise level impacts were completed for eight noise receiver locations (R1 through R8) that represent the nearest noise sensitive receivers (single-family dwellings) to the Project site. Representative sensitive receivers in the vicinity of the Project site include the single-family homes at locations R1 through R8 as shown in Figure 4.11-2, *Noise Receiver Locations*. The closest noise-sensitive receiver is represented by R6 where an existing residential home is located approximately 191 feet from the Project site boundary. (Urban Crossroads, Inc., 2017b, p. 53)

The noise impacts associated with the proposed Project are expected to create temporary high-level noise impacts at the nearby receiver locations when all equipment is operating adjacent to the Project site boundaries. To assess the worst-case construction noise levels at each receiver location, the site-specific noise impact analysis (*Technical Appendix I*) shows the noise impacts by phase when heavy equipment is operating simultaneously along the Project site boundary. In reality, noise levels would vary day-to-day and would vary throughout the workday and it is highly unlikely that all pieces of construction equipment would operate simultaneously at the same time and location adjacent to the Project site boundaries. Refer to Tables 10-2 through 10-8 of *Technical Appendix I* for expected noise levels during individual phases of construction. The Project's peak construction noise levels at the

eight modeled noise sensitive receiver locations are summarized in Table 4.11-10, *Unmitigated Construction Equipment Noise Levels*. Based on the construction noise standard described in Subsection 4.11.4, and as shown on Table 4.11-10, the Project's unmitigated construction noise level impacts are expected to reach a maximum of 67.9 dBA Leq and exceed the construction noise significance threshold of 65 dBA Leq at sensitive receiver location R6. Location R6 is located approximately 191 feet south of the Project site (Urban Crossroads, Inc., 2017b, p. 81) Accordingly, the Project's short-term construction activities would result in a significant short-term impact to noise sensitive receivers by exceeding the significance threshold by 2.9 dBA Leq. Mitigation would thus be required. Refer to Subsection 4.11.8 for applicable mitigation measures.

❑ Rock Blasting Noise Levels

Table 4.11-11, *Blasting Noise Levels*, shows the blasting noise level at the closest receiver location, R6, using the reference noise level taken by Urban Crossroads, Inc. at a construction site in Chatsworth, CA. Based on the reference blasting noise level, the closest residential receiver would experience noise levels approaching 80.5 dBA Lmax over the course of the blast, which would likely occur for only a few seconds. While some blasting noise may be noticeable by nearby residents, the single-event, temporary noise levels generated by the blast would not exceed the OSMRE and the CFR standards for airblasts. Therefore, short-term construction noise impacts associated with rock blasting would be less than significant. (Urban Crossroads, Inc., 2017b, pp. 87-88)

B. Stationary Operational Noise

The proposed Project includes the operation of two business park warehouse buildings. Sources of stationary noise associated with Project operation are expected to include idling trucks, delivery truck activities, parking, backup alarms, as well as loading and unloading of dry goods. Business operations would primarily be conducted within the enclosed buildings, except for traffic movement, parking, and the loading and unloading of trucks at designated loading bays. (Urban Crossroads, Inc., 2017b, p. 55)

Table 4.11-12, *Operational Noise Level Projections (dBA Leq)*, presents the exterior stationary operational noise levels from Project operation at nearby sensitive noise receivers, based on the reference noise levels described in Subsection 4.11.3. The operational noise levels summarized in Table 4.11-12 account for the distance attenuation provided due to geometric spreading, when sound from a localized stationary source (i.e., a point source) propagates uniformly outward in a spherical pattern, and the additional noise attenuation associated with the topographic relationship between the noise source, barrier, and receiver locations. In addition, Table 4.11-12 accounts for the noise attenuation provided by the 8-foot high noise barrier walls proposed along the southern boundaries of the Building D Site and the Building E Site (refer to Figure 4.11-3, *Operational Noise Source Locations*, for the locations of the noise barriers). As shown in Table 4.11-12, the hourly noise levels associated with Project operation are expected to range from 28.4 to 37.8 dBA Leq at the sensitive receiver locations. (Urban Crossroads, Inc., 2017b, p. 59) The operational noise level calculations are included in Appendix 9.2 of *Technical Appendix I*.

Project-only noise levels shown on Table 4.11-13, *Operational Noise Level Compliance (dBA Leq)*, include the attenuation provided by the 8-foot high noise barriers proposed along the portions of the southern boundary of the Building D Site where truck courts and loading docks would be positioned nearest the southern boundary. Without the 8-foot high noise barriers, the Project-only operational noise levels at the Building D Site would not satisfy the County of Riverside General Plan Noise Element standards at Receiver R6 and a significant impact would occur. (Urban Crossroads, Inc., 2017b, p. 59) As such, the Project also would not comply with General Plan Policy N 6.3 without installation of the 8-foot high wall, which is a policy that truck delivery hours be limited when adjacent to noise-sensitive land uses.

With the construction of the 8-foot high noise barriers at the southern property line of the Building D Site in the truck court areas, the Project's operational noise levels would not exceed the County of Riverside General Plan Noise Element's daytime (7:00 a.m. to 10:00 p.m.) noise level standard of 65 dBA Leq or nighttime (10:00 p.m. to 7:00 a.m.) noise level standard of 45 dBA Leq at any sensitive residential receiver locations. (Urban Crossroads, Inc., 2017b, p. 59) As indicated in Table 4.11-12, *Operational Noise Level Projections (dBA Leq)*, without installation of the 8-foot wall, Project-related noise at the Project site's southern property boundary is calculated to be 67.2 dBA Leq. The 8-foot high wall would provide for 11 dBA Leq of sound attention, and when accounting to distance to Receiver R6, the Project-related noise level at Receiver R6 would be 36.9 dBA Leq. Because noise levels at sensitive receivers would be less than significant with installation of the 8-foot high wall, the Project would not require delivery hour modifications pursuant to General Plan Policy N 6.3.

C. *Transportation-Related Noise*

To evaluate off-site noise increases that could result from Project-related traffic, noise levels were modeled for the following traffic scenarios:

- Existing: This traffic scenario refers to the existing present-day noise conditions without and with the proposed Project (Urban Crossroads, Inc., 2017b, p. 41).
- Year 2017: This traffic scenario refers to the background noise conditions at future Year 2017 without and with the proposed Project (Urban Crossroads, Inc., 2017b, p. 41).

- Year 2035: This traffic scenario refers to the background noise conditions at future Year 2035 without and with the proposed Project. This scenario corresponds to 2035 conditions, and includes all cumulative projects identified in the site-specific traffic impacts analysis (*Technical Appendix J*) (Urban Crossroads, Inc., 2017b, p. 41).

To quantify the Project's traffic noise impacts on the surrounding areas, the changes in traffic noise levels on 12 roadway segments surrounding the Project site were calculated by Urban Crossroads, Inc. based on the changes in the average daily traffic volumes. As previously noted, calculations of the Project's traffic-related noise presented in *Technical Appendix I* and herein were prepared prior to the Project Applicant's decision to reduce the size of Building E Site to its current configuration (which reduced Project-generated traffic volumes by approximately 12%); therefore, the Project's

contributions to traffic noise for the 2017 and 2035 scenarios are overstated herein by up to 12%. Because the land uses adjacent to the study area roadways conveying Project traffic consist of business park/industrial uses, which are considered non-noise sensitive, the methodology for assessing impacts to non-noise sensitive uses as described in Subsection 4.11.4, shall apply.

Urban Crossroads, Inc. used noise contours to assess the Project's incremental traffic-related noise impacts at land uses adjacent to roadways conveying Project traffic. The noise contours represent the distance to noise levels of a constant value and are measured from the center of the roadway for the 70, 65, and 60 dBA noise levels. The noise contours do not consider the effect of any existing noise barriers or topography that may affect ambient noise levels. In addition, because the noise contours reflect modeling of vehicular noise along area roadways, they appropriately do not reflect noise contributions from the surrounding stationary noise sources within the Project study area. A summary of the traffic noise level contours for each of the traffic scenarios is included in Appendix 7.1 of *Technical Appendix I*. (Urban Crossroads, Inc., 2017b, pp. 41-42) The study area includes intersections where the Project is calculated to contribute 50 or more peak hour trips per the County of Riverside's traffic study guidelines (Urban Crossroads, Inc., 2015a, p. 5). Other roadways would, thus, experience less Project-related traffic noise than reported herein.

1. Existing + Project Conditions

Table 4.11-14, *Existing Condition Off-Site Project-Related Traffic Noise Impacts*, presents a comparison of existing noise levels to noise levels that would result with implementation of the proposed Project in the absence of cumulative development and ambient growth. As shown on Table 4.11-14, the Project would generate potentially significant noise level increases of 13.0 to 19.7 dBA CNEL on two study area roadway segments: Oleander Avenue east of Driveway 6, and Oleander Avenue west of Harvill Avenue. It is important to note that under existing conditions Oleander Avenue is not fully constructed west of the future location of Driveway 6, which depresses existing noise levels along these Oleander Avenue segments by preventing through traffic. Further, the Project-generated traffic represents a larger share of projected noise along these roadway segments because the roadway will be fully constructed under Existing with Project conditions. Moreover, the Project-related traffic noise level increases would not cause noise levels to exceed the County of Riverside General Plan Noise Element's "*normally acceptable*" standard at the land uses adjacent to the affected segment of Oleander Avenue (70 dBA CNEL for Business Park and Industrial land uses). Regardless, based on the previously stated significance criteria, the *readily perceptible* Project-related increases of greater than 5 dBA at non-noise sensitive land uses that are below 60 dBA represent a significant direct impact under Existing + Project Conditions. (Urban Crossroads, Inc., 2017b, p. 47)

2. Year 2017+ Project Conditions

Table 4.11-15, *Year 2017 Off-Site Project-Related Noise Impacts*, presents a comparison of calculated 2017 noise levels to noise levels that would result with implementation of the proposed Project in the absence of cumulative development and ambient growth. As shown on Table 4.11-15, the Project would generate significant noise level increases of 13.0 to 19.7 dBA CNEL on two study area roadway segments: Oleander Avenue east of Driveway 6, and Oleander Avenue west of Harvill Avenue.

However, the Project-related traffic noise level increases would not cause noise levels to exceed the County of Riverside General Plan Noise Element's "*normally acceptable*" standard at the land uses adjacent to the affected segment of Oleander Avenue (70 dBA CNEL for Business Park and Industrial land uses). Regardless, based on the previously stated significance criteria, the readily perceptible Project-related increases of greater than 5 dBA at non-noise sensitive land uses that are below 60 dBA represent a significant direct impact under Year 2017 + Project Conditions. (Urban Crossroads, Inc., 2017b, pp. 48-49)

3. Year 2035 + Project Conditions

Table 4.11-16, *Year 2035 Off-Site Project-Related Traffic Noise Impacts*, presents calculated 2035 noise levels that would result with implementation of the proposed Project in the absence of cumulative development and ambient growth. Table 4.11-16 shows that the exterior noise levels without accounting for any noise attenuation features, are expected to range from 62.3 to 76.9 dBA CNEL without the Project. When Project-related traffic is added to 2035 conditions, noise level contours that are expected to range from 66.1 to 77.2 dBA CNEL. As shown on Table 4.11-16, the Project would generate less-than-significant noise level increases on the study area roadway segments based on the significance criteria, under Year 2035 + Project Conditions. (Urban Crossroads, Inc., 2017b, p. 49)

Noise Effects on or by the Project
Threshold d) Would the Project result in exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels?

A. Short-Term Construction Ground-borne Vibration Levels

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used and the distance to the affected structures and soil type. It is expected that ground-borne vibration from Project construction activities would cause intermittent, localized intrusion. The proposed Project's construction activities most likely to cause vibration impacts are heavy mobile construction equipment used on-site and trucks hauling building materials to the site. (Urban Crossroads, Inc., 2017b, pp. 84-85)

Ground-borne vibration levels resulting from construction activities occurring within the Project site were estimated by Urban Crossroads using data published by the Federal Transit Administration (FTA). Construction activities that would have the potential to generate low levels of ground-borne vibration within the Project site include grading and paving. Using the vibration source level of construction equipment provided in Table 4.11-9 and the construction vibration assessment methodology published by the FTA, the Project vibration impacts were estimated. Table 4.11-17, *Construction Equipment Vibration Levels*, presents the expected Project related vibration levels at the eight receiver locations. (Urban Crossroads, Inc., 2017b, p. 85)

Based on the reference vibration levels provided by the FTA, a large bulldozer represents the peak source of vibration with a reference velocity of 0.089 in/sec (PPV) at 25 feet. At distances ranging from 191 to 1,485 feet from the Project site, construction vibration velocity levels are expected to approach 0.004 in/sec PPV, as shown on Table 4.11-17. To assess the human perception of vibration levels in PPV, as previously discussed in Subsection 4.11.2, the velocities are converted to RMS vibration levels based on the *Caltrans Transportation and Construction Vibration Guidance Manual* conversion factor of 0.71. As shown in Table 4.11-17, the construction vibration levels in RMS are expected to approach 0.003 in/sec (RMS) at the eight receiver locations. Based on the County of Riverside vibration standards of 0.01 in/sec, the proposed Project's construction activities would not include or require equipment, facilities, or activities that would result in a barely perceptible human response (annoyance), and therefore, the construction-related vibration impacts are considered less-than-significant. (Urban Crossroads, Inc., 2017b, pp. 85-86)

Further, vibration levels at the site of the closest sensitive receiver are unlikely to be sustained during the entire construction period, but will occur rather only during the times that heavy construction equipment is operating along the Project site perimeter. Moreover, heavy construction at the Project site will be restricted to daytime hours consistent with the County of Riverside Noise Ordinance thereby eliminating potential vibration impacts during the sensitive nighttime hours. (Urban Crossroads, Inc., 2017b, p. 86)

B. Short-Term Construction Ground-borne Vibration Levels-Blasting Activities

Urban Crossroads, Inc. calculates that the major source of vibration due to rock blasting is expected to be from the charges placed in each drill hole within the Project site. The blasting contractor would design the blasts when located within 200 feet of existing residential structures to reduce vibration velocity levels from each blast below the Caltrans-identified damage threshold of 3.0 in/sec. Due to the ability of the blasting contractor to limit the ground-borne vibration levels, the vibration velocity levels at 191 feet to the nearest sensitive receiver would be less than significant. (Urban Crossroads, Inc., 2017b, p. 89)

C. Long-Term Operational Vibration

Although the human threshold of perception for vibration is around 65 VdB, human response to vibration is not usually significant unless the vibration exceeds 70 VdB. Truck vibration levels are dependent on vehicle characteristics, load, speed, and pavement condition. Typical vibration levels for heavy trucks at normal traffic speeds do not exceed 65 VdB. During long-term operation of the Project, trucks would travel to and from the Project site on surrounding roadways; however, vibration levels for heavy trucks operating at the posted speed limits on smooth, paved surfaces as is expected on the Project site and surrounding roadways, are typically below the human threshold of perception (65 VdB). Accordingly, long-term operation of the proposed Project would not result in the exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels. (Urban Crossroads, Inc., 2017b, p. 69) Thus, a less-than-significant impact would occur as a result of Project operations.

4.11.6 CUMULATIVE IMPACT ANALYSIS

The cumulative impact analyses considers construction and operation of the proposed Project in conjunction with other development projects in the immediate vicinity of the Project site that would be under simultaneous construction or operation, and which would have the potential for combined noise levels to audible at the same noise receiver locations. For the purposes of this analysis, the list of projects approach was used for all properties with a direct line of sight within 300 meters of the Project site and west of I-215. Refer to Table 4.0-1, Cumulative Development Land Use Summary and Figure 4.0-1, *Cumulative Development Location Map*. In regards to transportation noise, the cumulative study area relies upon the study area determined for the Project's traffic report, and considers the summary of projections approach combined with the list of projects provided in Table 4.0-1.

A. Airport Noise, Railroad Noise, and Other Noise

The proposed Project does not directly involve the construction, operation, or use of any public airports, public use airports, private airstrips, or railroads. Indirect and occasional use of airports and railroads by employees of the Project (including use of MetroLink) would be de minimus and immeasurably small. Occasional use by Project-related employees and employees and residents of cumulative development projects in the study area would not feasibly result in more flights or more railroad trips or increase noise levels associated with these forms of transportation. There are no conditions associated with the proposed Project that would contribute airport noise or railroad noise or exposure of people to unacceptable levels of airport noise or railroad noise. Accordingly, the Project would have no potential to cumulatively contribute to impacts associated with noise from a public airport, public use airport, private airstrip, or railroad. Additionally, the Project is not a noise sensitive land use and operation of the Project would not contribute towards the exposure of people to excessive airport- or railroad-related noise. As such, the Project would not contribute cumulatively considerable noise associated with airports, railroads. In addition, the Project would not result in any other noise source increases beyond those discussed in the topics discussed below.

B. Short-Term Construction-Related Cumulative Noise Impacts

Construction activities associated with the Project, especially activities involving heavy construction equipment and blasting, would create intermittent periods of noise when construction equipment is in operation and when blasting occurs. As previously shown in Table 4.11-10, *Unmitigated Construction Equipment Noise Levels*, the Project's construction activities would expose noise sensitive receiver R6 to noise levels in excess of 65 dBA Leq. In addition, blasting activities would expose nearby noise receivers to noise levels approaching 80.5 dBA Lmax over the course of the blast, which would likely occur for only a few seconds.

Project construction noise levels combined with ambient noise and vehicular noise from potential cumulative development projects would have a cumulative noise effect on these receivers. In the event that construction activities occur on any properties within 300 meters of the Project site occur simultaneously with Project-related construction activities and that also contribute construction noise

to receivers R2 through R7, a cumulative impact may occur and the Project's construction-related noise contribution to the overall noise level in the Project study area would be cumulatively considerable. None of the projects listed in Table 4.0-1 and located within 300 meters of the Project site are expected to be under construction at the same time as the proposed Project, but because construction schedules can fluctuate, there is still a possibility that simultaneous construction activities could occur and the combined noise levels could be cumulatively significant. The Project's contribution to cumulative construction activity noise levels would represent a cumulatively considerable substantial temporary or periodic increase in ambient noise levels in the Project study area above levels existing without the Project. Accordingly, the Project's short-term construction-related noise impacts are regarded as a cumulatively considerable short-term impact. Because construction noise would be temporary in nature, Project construction activities would result in a less than cumulatively considerable substantial permanent (long-term) increase in ambient noise levels in the Project study area above levels existing without the Project.

C. *Long-Term Stationary Operational Cumulative Noise Impacts*

To assess the potential impacts from cumulative development activities at each receiver location, the expected noise levels from adjacent cumulative development projects were combined with Existing + Project noise levels. Table 4.11-18, *Cumulative Daytime Noise Level Contributions (dBA Leq)*, shows the cumulative daytime noise level increase in the Project vicinity would range between 0.0 and 3.2 dBA Leq at nearby receiver locations. Based on the previously stated significance criteria and the expected ambient noise conditions at nearby receiver locations, the cumulative development impacts during daytime hours represent a less-than-significant impact on the existing ambient noise environment. Table 4.11-19, *Cumulative Nighttime Noise Level Contributions (dBA Leq)*, shows the cumulative development nighttime noise level increases would range from 0.6 to 13.8 dBA Leq. Based on the significance criteria and ambient noise conditions are nearby receiver locations, the total cumulative noise level increases at receiver locations R1 and R3 through R5 during nighttime hours represent a significant cumulative noise level impact. (Urban Crossroads, Inc., 2017b, pp. 64-65) However, the Project's noise contribution at these receiver locations would range between 0.0 and 0.6 dBA Leq and would neither be *readily perceptible* nor exceed the significance thresholds based on ambient noise conditions at the receiver locations. Accordingly, the Project's contribution to cumulative noise effects at receiver locations R1 and R3 through R5 would not be cumulatively considerable. (Urban Crossroads, Inc., 2017b, p. 65)

D. *Long-Term Cumulative Transportation-Related Noise Impacts*

Table 4.11-20, *Year 2035 Off-Site Cumulative Traffic Noise Impacts (dBA Leq)*, shows that the cumulative increase from Existing conditions to Year 2035 conditions would range from 2.5 to 18.2 dBA CNEL. Based on the significance criteria, the cumulative noise increase would represent a significant cumulative impact along the following roadway segments: 1) Harvill Avenue, south of Oleander Avenue; 2) I-215 NB Freeway, north of Harley Knox Boulevard; 3) Harley Knox Boulevard, east of Harvill Avenue; 4) Oleander Avenue, east of Driveway 6; and 5) Oleander Avenue, west of Harvill Avenue. At each of these roadway segments, the Project's transportation-related noise contribution would be less than 1.9 dBA CNEL. Accordingly, the Project's noise contribution would

neither be *readily perceptible* nor exceed the significance thresholds based on ambient noise conditions at the receiver locations. Therefore, since the Project-related off-site traffic noise level increases represent a less than significant contribution to the cumulative noise impacts, the Project-related traffic noise level increases are less than cumulatively considerable. (Urban Crossroads, Inc., 2017b, pp. 50-51)

E. Ground-borne Noise and Ground-borne Vibration

Based on the County of Riverside vibration standards, Project-related construction activities would not include or require equipment, facilities, or activities that would produce substantial ground-borne noise or ground-borne vibration. Vibration levels at the location of the closest receiver are unlikely to be sustained during the entire construction period, but would occur rather only during the times that heavy construction equipment is operating along the Project site perimeter. Additionally, the Project would employ blasting techniques during construction that would produce ground-borne noise and ground-borne vibration. Because vibration generated during Project construction and blasting would be minimal and would be limited to the Project site and the immediate environs adjacent to the Project site boundaries, and because there are no other sources of substantial vibration in the immediate Project site vicinity, the potential for the Project to result in cumulatively considerable ground-borne vibration during construction would be less-than-significant.

Under long-term conditions, operational activities of the proposed Project would not include or require equipment, facilities, or activities that would result in perceptible groundborne vibration. Trucks would travel to and from the Project site during long-term operation; however, vibration levels for heavy trucks operating at legal speeds operating at the posted speed limits on smooth, paved surfaces as is expected on the Project site and surrounding roadways are typically below the human threshold of perception (65 VdB). Accordingly, long-term operation of the Project would not expose people to or generate excessive groundborne vibration or groundborne noise levels. For this reason, impacts would be less than cumulatively considerable.

4.11.7 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Airport Noise

Airport Noise: Threshold (a) and (b) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would not expose people to excessive noise levels associated with a public airport or public use airport. No private airstrips are located in the vicinity of the Project site. The MARB is located approximately 1.1 miles east of the Project site, but the Project site would not be exposed to aircraft noise greater than the 60 dBA CNEL, which is acceptable for business park uses according to the Riverside County General Plan.

Railroad Noise

Railroad Noise: Threshold (a) for the Building D Site and the Building E Site: No Impact. The Project does not involve the construction, operation, or use of any railroads. Thus, the Project would not expose people to excessive railroad noise.

Highway Noise

Highway Noise: Threshold (a) for the Building D Site and the Building E Site: Less-than-Significant Impact. I-215 is located approximately 2,112 feet from the Project site. According to the Riverside County General Plan, land uses that are greater than 1,228 feet and less than 2,645 from a freeway corridor would be subject to noise levels ranging from 55 dBA to 60 dBA. Industrial uses like those proposed on the Project site are considered *normally acceptable* at noise levels of 75 dBA CNEL according to the Riverside County General Plan. Thus, the Project would not expose people to excessive highway noise.

Other Noise

Other Noise: Threshold (a) for the Building D Site and the Building E Site: No Impact. The Project site does not contain any other aspects that would qualify as "other noise" that has not been addressed by other thresholds. Thus, the Project would not result in other noise.

Noise Effects on or by the Project

Noise Effects on or by the Project: Threshold (a), (b), and (c) for the Building D Site and the Building E Site: Significant Direct Impact (Short-Term) and Cumulatively Considerable Impact (Short-Term). Project-related construction activities, including blasting, would result in a direct short-term significant impact to noise-sensitive receivers. Also, in the event that construction activities occur on any properties surrounding the Project site simultaneously with Project-related construction activities, and that also would contribute construction noise to significantly impacted noise-sensitive receivers, a cumulative impact may occur and the Project's construction-related noise contribution to the overall noise level in the Project study area would be cumulatively considerable. The Project's contribution to off-site, transportation-related noise levels along several Oleander Road segments adjacent to and west of the Project site would result in a significant direct impact under Existing + Project and Year 2017 traffic conditions.

Noise Effects on or by the Project: Threshold (a), (b) and (c) for the Building D Site and the Building E Site: Less-than-Significant Impact (Long-Term). Project-related operational impacts would result in a less-than-significant impact to noise-sensitive receivers in the long term associated with on-site operational activities and off-site traffic-related noise. The Project's contribution to roadway noise levels at adjacent land uses would result in a less-than-significant direct and cumulatively considerable impact under Year 2035 traffic conditions.

Threshold (d) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would not generate substantial noise or ground-borne vibration during short-term construction and blasting activities or long-term operational activities.

4.11.8 MITIGATION MEASURES

Applicable County Regulations and Design Requirements

The following are applicable regulations and design requirements to which the Project is required to comply. Although these regulations and requirements technically do not meet CEQA's definition for mitigation, they are listed below for information purposes.

- All construction activities shall comply with the County of Riverside Noise Ordinance (Chapter 9.52 of the County of Riverside Code of Ordinances). This requirement shall be noted on all grading and building plans and in bid documents issued to construction contractors.

- As a Riverside County condition of approval for blasting activities at the Project site, and prior to the issuance of grading permits, a blasting noise and vibration monitoring and abatement plan shall be submitted to and approved by the County of Riverside. The contractor shall be required to comply with the approved plan.

  a) Pre-blasting inspections shall be offered to property owners within 200 feet of the blast site.

  b) Existing damage of each structure shall be documented.

  c) Post-blasting inspections shall be offered to assess any new or additional damage to each structure once blasting activities have ceased for those property owners who accepted pre-blast inspections.

  d) Property owners within at least 200 feet of the blast site shall be notified via postings on the construction site at least 24 hours before the occurrence of major construction-related noise and vibration impacts (such as grading and rock blasting) which may affect them.

  e) The County may impose conditions and procedures on the blasting operations as necessary. The construction contractor shall comply with these measures for the duration of the blasting permit. The County may inspect the blast site and materials at any reasonable time.

Mitigation Measures

The following mitigation measures would reduce noise levels produced by the Project's construction-related activities:

MM 4.11-1 Prior to the issuance of grading permits and building permits that would authorize grading and construction activities on the Building D Site, the construction contractor

shall install a minimum 6-foot high temporary noise barrier along the southern boundary of the Building D Site. The temporary noise control barrier must present a solid face from top to bottom and must be a minimum of 6 feet high. The temporary noise control barrier shall comply with the following:

a) The noise barrier may be constructed using an acoustical blanket (i.e., vinyl acoustic curtains or quilted blankets) attached to the construction site perimeter fence or equivalent temporary fence posts.

b) The noise barriers must be maintained and any damage promptly repaired. Gaps, holes, or weaknesses in the barrier or openings between the barrier and the ground shall be promptly repaired.

c) The noise control barriers and associated elements shall be completely removed and the site appropriately restored upon the conclusion of the construction activity.

MM 4.11-2 Prior to any issuance of grading and building permits, the County of Riverside shall review grading and building plans to ensure the following notes are included on the plans. Project contractors shall be required to comply with these notes and maintain written records of such compliance that can be inspected by the County of Riverside upon request.

a) The construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards.

b) The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from the noise sensitive receptors nearest the Project site.

c) The construction contractor shall locate equipment staging in the north-central portions of the Project site (in the vicinity of the future Ellsworth Street / Oleander Road intersection) to maximize the distance between construction-related noise sources and noise-sensitive receivers nearest the Project site.

d) The construction contractor shall limit haul truck deliveries to the same hours specified by the Riverside County Noise Ordinance for the operation of construction equipment (between the hours of 6:00 a.m. and 6:00 p.m., during the months of June through September, and 7:00 a.m. and 6:00 p.m., during the months of October through May).

e) The contractor shall prepare a haul route exhibit and shall design delivery routes to minimize the exposure of sensitive land uses or residential dwellings to delivery truck-related noise.

The following mitigation measures would reduce the Project's operational noise impacts to noise-sensitive receivers:

MM 4.11-3 Prior to building permit final inspection, the County of Riverside shall verify that a minimum 8-foot high solid noise barrier is constructed along the southwestern and southeastern corners of the Building D Site, adjacent to the truck yard/truck parking area.

MM 4.11-4 Prior to building permit final inspection, the County of Riverside shall review building plans to ensure that the following notes are included. Contractors shall be required to comply with these notes and maintain written records of such compliance that can be inspected by the County of Riverside upon request. Additionally, prior to building permit final inspection, the Project's property owner(s) shall provide documentation to the County of Riverside verifying that provisions are made in the builder's lease agreement that inform tenants of the following:

a) All on-site operating equipment under the control of the building user that is used in outdoor areas (including but not limited to trucks, tractors, forklifts, and hostlers), shall be operated with properly functioning and well-maintained mufflers.

b) Speed bumps are not allowed. Quality pavement conditions shall be maintained on the property that is free of vertical deflection (i.e. speed bumps) to minimize truck noise.

MM 4.11-5 Should any of the buildings accommodate a user that requires special noise generators, including but not limited to outdoor compressors, air scrubbers, emergency generators, large HVAC units, or outdoor amplification (speakers), prior to the issuance of a building permit or occupancy permit that would allow installation of the noise generator, an acoustical study shall be prepared to show that noise levels at noise sensitive receivers would not exceed the Riverside County Noise Ordinance operational noise standards for noise-sensitive receivers of 65 dBA nighttime and 45 dBA nighttime.

4.11.9 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Noise Effects on or by the Project

Threshold (a), (b), and (c): Less-than-Significant Short-Term Impact (Construction-Related Noise) and Significant and Unavoidable Short-Term Impact (Off-Site Traffic Noise). Mitigation Measures

MM 4.11-1 and MM 4.11-2 will ensure that the Project would construct a temporary noise barrier adjacent to maximally exposed, nearby noise sensitive receptors and also employ noise-reducing construction techniques. As summarized in Table 4.11-21, *Mitigated Construction Equipment Noise Summary*, these mitigation measures would reduce the Project's construction-related noise to less-than-significant levels at nearby sensitive receivers by remaining below the 65 dBA Leq threshold

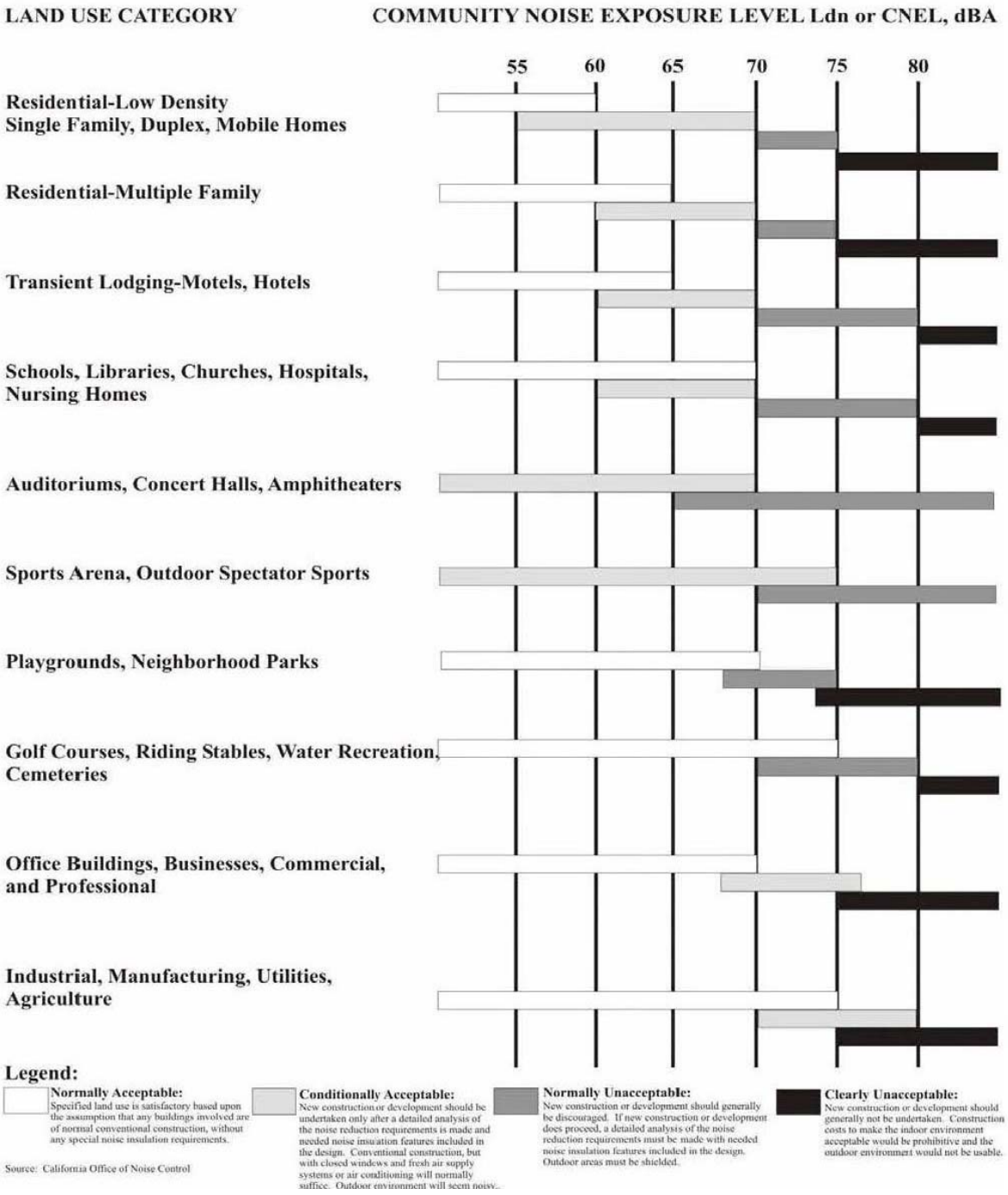
No feasible mitigation measures are available to reduce the Project's transportation-related noise impacts along the Oleander Road segments west of Harvill Avenue and east of the Project's Driveway #6 under Existing + Project and Year 2017 conditions. The only way to reduce the impact would be to surround the front yards of the parcels adjacent to the affected Oleander Road segments with a solid wall, which is not feasible because it would restrict access to these parcels. Furthermore, the noise levels along the affected segments of Oleander Road would not exceed 65 dBA CNEL during either the Existing + Project or the Year 2017 noise scenarios. The parcels adjacent to the affected Oleander Road segments are designated by the Riverside County General Plan for "Business Park" land uses. Business Park land uses are not considered to be noise sensitive uses, and Riverside County considers noise levels 65 dBA or less to be acceptable for such uses. By the Year 2035, the Project's contribution of transportation-related noise along the above-listed segments of Oleander Road would be reduced to less-than-significant levels, as ambient traffic volumes increase along the roadway and the Project's overall percentage of the noise levels would diminish. Regardless, because the Project's greater than 5 dBA contribution of transportation-related noise along the Oleander Road segments west of Harvill Avenue and east of the Project's Driveway #6 would exceed the significance thresholds under Existing + Project and Year 2017 conditions and no feasible mitigation is available to avoid the impact, the Project's short-term impact would be significant and unavoidable.

Table 4.11-1 24-Hour Ambient Noise Level Measurements

Location[1]	Distance To Project Site Boundary	Description	Hourly Noise Level (dBA Leq)[2]		CNEL
			Daytime	Nighttime	
L1	1,920'	Located at the northwest corner of Corson Avenue and Day Street near existing residential homes.	56.4	45.2	58.4
L2	1,770'	Located along Day Street south of Burch Street near existing residential homes.	58.2	51.7	61.2
L3	225'	Located southwest of the Project site along Nance Street adjacent to existing residential homes.	56.1	42.9	57.6
L4	0'	Located at the future southwest property line of Building D, adjacent to existing residential homes on Redwood Drive.	55.9	44.6	56.8
L5	1,074'	Located on Old Oleander Avenue, northeast of the Project site near an existing cell tower with electrical generators and residential home.	63.0	58.2	66.5
L6	1,285'	Located at the northwest corner of Markham Street and Decker Road near existing residential homes.	63.7	60.6	68.2
L7	1,282'	Located along Markham Street near existing residential homes, south of the Project site.	69.5	66.3	73.9

[1] See Figure 4.11-1 for the noise measurement locations.
[2] Energy (logarithmic) average hourly levels. The long-term 24-hour measurements are included in Appendix 5.2 of *Technical Appendix I*.
"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.
Source: (Urban Crossroads, Inc., 2017b, Table 5-1)

Table 4.11-2 Land Use Compatibility for Community Noise Exposure



Source: County of Riverside General Plan Element, Table N-1.
Source: (Urban Crossroads, Inc., 2015a, Exhibit 3-A)

Table 4.11-3 Operational Noise Standards

Jurisdiction	Land Use	Time Period	Exterior Noise Level Standards (dBA Leq)[2]
County of Riverside[1]	Residential	Daytime (7:00 a.m. - 10:00 p.m.)	65
		Nighttime (10:00 p.m. - 7:00 a.m.)	45

[1]Leq represents a steady state sound level containing the same total energy as a time varying signal over a given sample period.
Source: County of Riverside General Plan Noise Element, Table N-2.
Source: (Urban Crossroads, Inc., 2015a, Table 3-1)

Table 4.11-4 Significance of Noise Impacts at Noise Sensitive Receivers

Without Project Noise Level	Potential Significant Impact
< 60 dBA	5 dBA or more
60 - 65 dBA	3 dBA or more
> 65 dBA	1.5 dBA or more

Source: Federal Interagency Committee on Noise (FICON), 1992
Source: (Urban Crossroads, Inc., 2017b, Table 4-1)

Table 4.11-5 Significance Criteria Summary

Noise Analysis	Land Use	Condition(s)	Significance Criteria	
			Daytime	Nighttime
Off-Site	Noise-Sensitive	if ambient is < 60 dBA CNEL	≥ 5 dBA CNEL Project increase	
		if ambient is 60 - 65 dBA CNEL	≥ 3 dBA CNEL Project increase	
		if ambient is > 65 dBA CNEL	≥ 1.5 dBA CNEL Project increase	
	Non-Noise-Sensitive	if ambient is < 70 dBA CNEL	≥ 5 dBA CNEL Project increase	
		if ambient is > 70 dBA CNEL	≥ 3 dBA CNEL Project increase	
Operational	Noise-Sensitive	Exterior residential land use	65 dBA Leq	45 dBA Leq
		if ambient is < 60 dBA Leq	≥ 5 dBA Leq Project increase	
		if ambient is 60 - 65 dBA Leq	≥ 3 dBA Leq Project increase	
		if ambient is > 65 dBA Leq	≥ 1.5 dBA Leq Project increase	
Construction	Noise-Sensitive	Permitted hours of 6:00 a.m. and 6:00 p.m., during the months of June through September, and 7:00 a.m. and 6:00 p.m., during the months of October through May		
		Noise level threshold	65 dBA Leq	45 dBA Leq
		Vibration level threshold	0.01 in/sec (RMS)	n/a
		Blasting Noise Threshold	129 dBA Lmax	n/a
		Blasting Vibration Threshold	3.0 in/sec (PPV)	n/a

"Daytime: = 7:00 a.m. to 10"00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.; "n/a" = No nighttime construction activity is permitted and therefore, no nighttime construction noise level is identified.
Source: (Urban Crossroads, Inc., 2017b, Table 4-2)

Table 4.11-6 Construction Reference Noise Levels

ID	Noise Source	Reference Distance From Source (Feet)	Reference Noise Levels @ Reference Distance		Reference Noise Levels @ 50 Feet[6]	
			dBA Leq	dBA Lmax	dBA Leq	dBA Lmax
1	Truck Pass-Bys & Dozer Activity[1]	30'	63.6	68.1	59.2	63.7
2	Dozer Activity[1]	30'	68.6	76.4	64.2	72.0
3	Construction Vehicle Maintenance Activities[2]	30'	71.9	74.8	67.5	70.4
4	Foundation Trenching[2]	30'	72.6	74.9	68.2	70.5
5	Rough Grading Activities[2]	30'	77.9	84.8	73.5	80.4
6	Residential Framing[3]	30'	66.7	76.7	62.3	72.3
7	Water Truck Pass-By & Backup Alarm[4]	30'	76.3	82.3	71.9	77.9
8	Dozer Pass-By[4]	30'	84.0	89.9	79.6	85.5
9	Two Scrapers & Water Truck Pass-By[4]	30'	83.4	89.0	79.0	84.6
10	Two Scrapers Pass-By[4]	30'	83.7	86.9	79.3	82.5
11	Scraper, Water Truck, & Dozer Activity[4]	30'	79.7	87.7	75.3	83.3
12	Concrete Mixer Truck Movements[5]	50'	71.2	73.1	71.2	73.1
13	Concrete Paver Activities[5]	30'	70.0	75.7	65.6	71.3
14	Concrete Mixer Pour & Paving Activities[5]	30'	70.3	76.3	65.9	71.9
15	Concrete Mixer Backup Alarms & Air Brakes[5]	50'	71.6	78.8	71.6	78.8
16	Concrete Mixer Pour Activities[5]	50'	67.7	79.2	67.7	79.2

[1] As measured by Urban Crossroads, Inc. on 10/14/15 at a business park construction site located at the northwest corner of Barranca Parkway and Alton Parkway in the City of Irvine.
[2] As measured by Urban Crossroads, Inc. on 10/20/15 at a construction site located in Rancho Mission Viejo.
[3] As measured by Urban Crossroads, Inc. on 10/30/15 during grading operations within an industrial construction site located in the City of Ontario.
[4] Reference noise level measurements were collected from a nighttime concrete pour at an industrial construction site, located at 27334 San Bernardino Avenue in the City of Redlands, between 1:00 a.m. and 2:00 a.m. on 7/1/15.
[5] Reference noise levels are calculated at 50 feet using a drop off rate of 6 dBA per doubling of distance (point source).
(Urban Crossroads, Inc., 2017b, Table 10-1)

Table 4.11-7 Blasting Reference Noise Levels

Reference Construction Activity[1]	Reference Noise Level @ 370 Feet (dBA Lmax)
Blasting	81.5
Peak Reference Noise Level at 370 Feet:	81.5

[1] As measured by Urban Crossroads, Inc. on March 15, 2016 at a construction site in Chatsworth, CA.
(Urban Crossroads, Inc., 2017b, Table 10-12)

Table 4.11-8 Off-Site Roadway Parameters

ID	Roadway	Segment	Adjacent Planned Land Use[1]	Distance from Centerline to Nearest Adjacent Land Use (Feet)[2]	Posted Vehicle Speed (MPH)
1	Harvill Av.	s/o Harley Knox Bl.	Business Park	59'	50
2	Harvill Av.	n/o Oleander Av.	Business Park	59'	50
3	Harvill Av.	s/o Oleander Av.	Business Park	59'	50
4	I-215 SB Fwy	n/o Harley Knox Bl.	Light Industrial	85'	65
5	I-215 SB Fwy	s/o Harley Knox Bl.	Light Industrial	85'	65
6	I-215 NB Fwy	n/o Harley Knox Bl.	Light Industrial	85'	65
7	I-215 NB Fwy	s/o Harley Knox Bl.	Light Industrial	85'	65
8	Harley Knox Bl.	e/o Harvill Av.	Business Park	76'	45
9	Harley Knox Bl.	e/o I-215 SB Fwy Ramps	Light Industrial	76'	45
10	Harley Knox Bl.	e/o I-215 NB Fwy Ramps	Light Industrial	76'	45
11	Oleander Av.	e/o Driveway 6	Business Park	50'	40
12	Oleander Av.	w/o Harvill Av.	Business Park	50'	40

[1] Source: County of Riverside General Plan, Mead Valley Area Plan Land Use Plan, Figure 3.
[2] Distance to adjacent land use is based upon the right-of-way distances for each functional roadway classification provided in the General Plan Circulation Elements.
Source: (Urban Crossroads, Inc., 2017b, Table 6-1)

Table 4.11-9 Vibration Source Levels for Construction Equipment

Equipment	PPV (in/sec) at 25 feet
Small bulldozer	0.003
Jackhammer	0.035
Loaded Trucks	0.076
Large bulldozer	0.089

Source: FTA, Transit Noise and Vibration Impact Assessment, May 2006.
Source: (Urban Crossroads, Inc., 2017b, Table 6-7)

Table 4.11-10 Unmitigated Construction Equipment Noise Levels

Noise Receiver[1]	Distance to Const. Activity (Feet)	Construction Phase Hourly Noise Level (dBA Leq)							
		Demo.	Grading	Utilities	Building Const.	Landscape	Paving	Arch.	Peak[2]
R1	1,992'	47.6	47.6	47.6	47.6	47.6	39.6	36.2	47.6
R2	1,141'	52.4	52.4	52.4	52.4	52.4	44.4	41.0	52.4
R3	1,044'	53.2	53.2	53.2	53.2	53.2	45.2	41.8	53.2
R4	631'	57.5	57.5	57.5	57.5	57.5	49.6	46.1	57.5
R5	780'	55.7	55.7	55.7	55.7	55.7	47.7	44.3	55.7
R6	191'	67.9	67.9	67.9	67.9	67.9	60.0	56.5	67.9
R7	814'	55.3	55.3	55.3	55.3	55.3	47.4	43.9	55.3
R8	1,163'	52.2	52.2	52.2	52.2	52.2	44.3	40.8	52.2

[1] Noise receiver locations are shown on Figure 4.11-2.
[2] Estimated construction noise levels during peak operating conditions.
Source: (Urban Crossroads, Inc., 2017b, Table 10-9)

Table 4.11-11 Blasting Noise Levels

Reference Construction Activity[1]	Reference Noise Level @ 370 Feet (dBA Lmax)
Blasting	81.5
Peak Reference Noise Level at 370 Feet:	81.5

Receiver Location	Distance To Property Line Activity (Feet)[2]	Distance Attenuation (dBA)[3]	Calculated Noise Barrier Attenuation (dBA)[4]	Blasting Noise Level (dBA Lmax)
R6	191'	5.7	-6.7	80.5

[1] As measured by Urban Crossroads, Inc. on March 15, 2016 at a construction site in Chatsworth, CA.
[2] Distance from the nearest point of construction activity to the nearest receiver.
[3] Point (stationary) source drop off rate of 6.0 dBA per doubling of distance.
[4] Calculated barrier attenuation from existing barriers in the Project study area (refer to Appendix 10.2 of *Technical Appendix I*).
Source: (Urban Crossroads, Inc., 2017b, Table 10-12)

Table 4.11-12 Operational Noise Level Projections (dBA Leq)

Receiver Location[1]	Project Noise (dBA Leq)[2]	Distance From Source To Receiver (Feet)[3]	Attenuation (dBA Leq)		Noise Level At Receiver Locations (dBA Leq)[6]
			Distance[4]	Recommended Noise Barriers[5]	
R1	67.2	2,598'	-38.8	0.0	28.4
R2	67.2	1,685'	-35.0	0.0	32.2
R3	67.2	1,577'	-34.4	0.0	32.8
R4	67.2	1,164'	-31.8	0.0	35.4
R5	67.2	881'	-29.4	0.0	37.8
R6	67.2	276'	-19.3	-11.0	36.9
R7	67.2	998'	-30.4	0.0	36.8
R8	67.2	1,310'	-32.8	0.0	34.4

[1] Refer to Figure 4.11-2 for the noise receiver and noise source locations.
[2] Worst-case Project-only reference noise level.
[3] Estimated distances to nearest loading dock activities.
[4] Noise levels diminish at a rate of 6 dBA per doubling of distance and a reference distance of 30 feet.
[5] Calculated noise attenuation provided by the recommended barriers.
[6] Estimated Project stationary source noise levels.
Source: (Urban Crossroads, Inc., 2017b, Table 9-2)

Table 4.11-13 Operational Noise Level Compliance (dBA Leq)

Receiver Location[1]	Noise Level At Receiver Locations (dBA Leq)[2]	Noise Level Standard (dBA Leq)[3]		Compliance[4]	
		Daytime	Nighttime	Daytime	Nighttime
R1	28.4	65	45	Yes	Yes
R2	32.2	65	45	Yes	Yes
R3	32.8	65	45	Yes	Yes
R4	35.4	65	45	Yes	Yes
R5	37.8	65	45	Yes	Yes
R6	36.9	65	45	Yes	Yes
R7	36.8	65	45	Yes	Yes
R8	34.4	65	45	Yes	Yes

[1] Refer to Figure 4.11-2 for the noise receiver and noise source locations.
[2] Estimated Project stationary source noise levels as shown on Table 4.11-12.
[3] Noise standards as shown on Table 4.11-3.
[4] Do the estimated Project stationary source noise levels meet the noise standards on the affected land uses?
"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.
Source: (Urban Crossroads, Inc., 2017b, Table 9-3)

Table 4.11-14 Existing Condition Off-Site Project-Related Traffic Noise Impacts

ID	Road	Segment	Adjacent Planned Land Use[1]	CNEL at Adjacent Land Use (dBA)[2]			Potential Significant Impact at Receivers?[3]	
				No Project	With Project	Project Addition	Noise-Sensitive	Non Noise-Sensitive
1	Harvill Av.	s/o Harley Knox Bl.	Business Park	65.9	68.5	2.6	No	No
2	Harvill Av.	n/o Oleander Av.	Business Park	65.6	68.4	2.8	No	No
3	Harvill Av.	s/o Oleander Av.	Business Park	65.5	65.7	0.2	No	No
4	I-215 SB Fwy	n/o Harley Knox Bl.	Light Industrial	74.3	74.3	0.0	No	No
5	I-215 SB Fwy	s/o Harley Knox Bl.	Light Industrial	73.8	74.0	0.2	No	No
6	I-215 NB Fwy	n/o Harley Knox Bl.	Light Industrial	73.6	74.2	0.6	No	No
7	I-215 NB Fwy	s/o Harley Knox Bl.	Light Industrial	72.9	72.9	0.0	No	No
8	Harley Knox Bl.	e/o Harvill Av.	Business Park	65.1	67.8	2.7	No	No
9	Harley Knox Bl.	e/o I-215 SB Fwy Ramps	Light Industrial	66.0	67.9	1.9	No	No
10	Harley Knox Bl.	e/o I-215 NB Fwy Ramps	Light Industrial	67.1	67.2	0.1	No	No
11	Oleander Av.	e/o Driveway 6	Business Park	44.1	63.8	19.7	No	Yes
12	Oleander Av.	w/o Harvill Av.	Business Park	51.0	64.0	13.0	No	Yes

[1] Sources: County of Riverside General Plan, Mead Valley Area Plan Land Use Plan, Figure 3.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.
[3] Based on Significance Criteria.
Source: (Urban Crossroads, Inc., 2017b, Table 7-7)

Table 4.11-15 Year 2017 Off-Site Project-Related Noise Impacts

ID	Road	Segment	Adjacent Planned Land Use[1]	CNEL at Adjacent Land Use (dBA)[2]			Potential Significant Impact at Receivers?[3]	
				No Project	With Project	Project Addition	Noise-Sensitive	Non Noise-Sensitive
1	Harvill Av.	s/o Harley Knox Bl.	Business Park	66.8	69.0	2.2	No	No
2	Harvill Av.	n/o Oleander Av.	Business Park	66.7	69.0	2.3	No	No
3	Harvill Av.	s/o Oleander Av.	Business Park	66.4	66.6	0.2	No	No
4	I-215 SB Fwy	n/o Harley Knox Bl.	Light Industrial	75.5	75.5	0.0	No	No
5	I-215 SB Fwy	s/o Harley Knox Bl.	Light Industrial	75.2	75.4	0.2	No	No
6	I-215 NB Fwy	n/o Harley Knox Bl.	Light Industrial	75.0	75.4	0.4	No	No
7	I-215 NB Fwy	s/o Harley Knox Bl.	Light Industrial	73.9	73.9	0.0	No	No
8	Harley Knox Bl.	e/o Harvill Av.	Business Park	66.1	68.4	2.3	No	No
9	Harley Knox Bl.	e/o I-215 SB Fwy Ramps	Light Industrial	68.6	69.7	1.1	No	No
10	Harley Knox Bl.	e/o I-215 NB Fwy Ramps	Light Industrial	70.1	70.2	0.1	No	No
11	Oleander Av.	e/o Driveway 6	Business Park	44.1	63.8	19.7	No	Yes
12	Oleander Av.	w/o Harvill Av.	Business Park	51.0	64.0	13.0	No	Yes

[1] Sources: County of Riverside General Plan, Mead Valley Area Plan Land Use Plan, Figure 3.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.
[3] Based on Significance Criteria.
Source: (Urban Crossroads, Inc., 2017b, Table 7-8)

Table 4.11-16 Year 2035 Off-Site Project-Related Traffic Noise Impacts

ID	Road	Segment	Adjacent Planned Land Use[1]	CNEL at Adjacent Land Use (dBA)[2]			Potential Significant Impact at Receivers?[3]	
				No Project	With Project	Project Addition	Noise-Sensitive	Non Noise-Sensitive
1	Harvill Av.	s/o Harley Knox Bl.	Business Park	69.7	71.0	1.3	No	No
2	Harvill Av.	n/o Oleander Av.	Business Park	69.7	71.0	1.3	No	No
3	Harvill Av.	s/o Oleander Av.	Business Park	70.6	70.7	0.1	No	No
4	I-215 SB Fwy	n/o Harley Knox Bl.	Light Industrial	76.8	76.8	0.0	No	No
5	I-215 SB Fwy	s/o Harley Knox Bl.	Light Industrial	76.4	76.5	0.1	No	No
6	I-215 NB Fwy	n/o Harley Knox Bl.	Light Industrial	76.9	77.2	0.3	No	No
7	I-215 NB Fwy	s/o Harley Knox Bl.	Light Industrial	75.7	75.7	0.0	No	No
8	Harley Knox Bl.	e/o Harvill Av.	Business Park	70.5	71.5	1.0	No	No
9	Harley Knox Bl.	e/o I-215 SB Fwy Ramps	Light Industrial	69.6	70.6	1.0	No	No
10	Harley Knox Bl.	e/o I-215 NB Fwy Ramps	Light Industrial	70.8	70.8	0.0	No	No
11	Oleander Av.	e/o Driveway 6	Business Park	62.3	66.1	3.8	No	No
12	Oleander Av.	w/o Harvill Av.	Business Park	62.3	66.1	3.8	No	No

[1] Sources: County of Riverside General Plan, Mead Valley Area Plan Land Use Plan, Figure 3.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.
[3] Based on Significance Criteria
Source: (Urban Crossroads, Inc., 2017b, Table 7-9)

Table 4.11-17 Construction Equipment Vibration Levels

Noise Receiver[1]	Distance to Construction (Feet)	Receiver PPV Levels (in/sec)[2]					RMS Velocity Levels (in/sec)[3]	Potential Significant Impact?[4]
		Small Bulldozer	Jack-hammer	Loaded Trucks	Large Bulldozer	Peak Vibration		
R1	1,485'	0.0000	0.0001	0.0002	0.0002	0.000	0.000	No
R2	537'	0.0000	0.0004	0.0008	0.0009	0.001	0.001	No
R3	612'	0.0000	0.0003	0.0006	0.0007	0.001	0.001	No
R4	418'	0.0000	0.0005	0.0011	0.0013	0.001	0.001	No
R5	780'	0.0000	0.0002	0.0004	0.0005	0.001	0.000	No
R6	191'	0.0001	0.0017	0.0036	0.0042	0.004	0.003	No
R7	814'	0.0000	0.0002	0.0004	0.0005	0.000	0.000	No
R8	1,163'	0.0000	0.0001	0.0002	0.0003	0.000	0.000	No

[1] Receiver locations are shown on Figure 4.11-2.
[2] Based on the vibration source levels of construction equipment included in Table 4.11-9.
[3] Vibration levels in PPV are converted to RMS velocity using a 0.71 conversion factor identified in the *Caltrans Transportation and Vibration Guidance Manual*, September 2013.
[4] Does the peak vibration exceed the County of Riverside maximum acceptable vibration standard of 0.01 in/sec.?
Source: (Urban Crossroads, Inc., 2017b, Table 10-11)

Table 4.11-18 Cumulative Daytime Noise Level Contributions (dBA Leq)

Receiver Location[1]	Existing Ambient Measurements (dBA Leq)[2]		Cumulative Dev. Only Noise Level[3]	Cumulative Plus Existing Noise Levels (dBA Leq)[4]		Potentially Significant Impact?[5]	Project Only Operational Noise Level[6]	Combined Existing Plus Project Noise Levels (dBA Leq)[7]		Potentially Significant Impact?[5]	Cumulative Plus Project Plus Existing Noise Levels (dBA Leq)[8]			Potentially Significant Impact?[5]
	Meas. Location	Noise Level		Logarithmic Sum	Increase Over Existing			Logarithmic Sum	Increase Over Existing		Logarithmic Sum	Increase Over Existing	Project Contribution	
R1	L1	56.4	52.3	57.8	1.4	No	28.4	56.4	0.0	No	57.8	1.4	0.0	No
R2	L2	58.2	35.0	58.2	0.0	No	32.2	58.2	0.0	No	58.2	0.0	0.0	No
R3	L3	56.1	54.3	58.3	2.2	No	32.8	56.1	0.0	No	58.3	2.2	0.0	No
R4	L3	56.1	56.5	59.3	3.2	No	35.4	56.1	0.0	No	59.3	3.2	0.0	No
R5	L4	55.9	49.9	56.9	1.0	No	37.8	56.0	0.1	No	56.9	1.0	0.1	No
R6	L4	55.9	36.2	55.9	0.0	No	36.9	56.0	0.1	No	56.0	0.1	0.1	No
R7	L7	69.5	60.2	70.0	0.5	No	36.8	69.5	0.0	No	70.0	0.5	0.0	No
R8	L5	63.0	50.1	63.2	0.2	No	34.4	63.0	0.0	No	63.2	0.2	0.0	No

[1] Refer to Figure 4.11-2 for the noise receiver locations.
[2] Existing noise level measurement locations are shown on Figure 4.11-1 and the noise levels are shown on Table 4.11-1.
[3] Cumulative development operational noise levels at each receiver location.
[4] Represents the combined existing ambient conditions plus the cumulative development activities.
[5] Does the noise level increase exceed the significance criteria?
[6] Total Project operational noise levels as shown on Table 4.11-12.
[7] Represents the combined existing ambient conditions plus the Project activities, and the noise level increase expected with the addition of the proposed Project activities.
[8] Represents the combined ambient conditions plus the Project activities plus the cumulative development activities.
Source: (Urban Crossroads, Inc., 2017b, Table 9-6)

Table 4.11-19 Cumulative Nighttime Noise Level Contributions (dBA Leq)

Receiver Location[1]	Existing Ambient Measurements (dBA Leq)[2]		Cumulative Dev. Only Noise Level[3]	Cumulative Plus Existing Noise Levels (dBA Leq)[4]		Potentially Significant Impact?[5]	Project Only Operational Noise Level[6]	Combined Existing Plus Project Noise Levels (dBA Leq)[7]		Potentially Significant Impact?[5]	Cumulative Plus Project Plus Existing Noise Levels (dBA Leq)[8]			Potentially Significant Impact?[5]
	Meas. Location	Noise Level		Logarithmic Sum	Increase Over Existing			Logarithmic Sum	Increase Over Existing		Logarithmic Sum	Increase Over Existing	Project Contribution	
R1	L1	45.2	52.3	53.0	7.8	Yes	28.4	45.3	0.1	No	53.1	7.9	0.0	No
R2	L2	51.7	35.0	51.8	0.1	No	32.2	51.7	0.0	No	51.8	0.1	0.0	No
R3	L3	42.9	54.3	54.6	11.7	Yes	32.8	43.3	0.4	No	54.7	11.8	0.0	No
R4	L3	42.9	56.5	56.7	13.8	Yes	35.4	43.6	0.7	No	56.7	13.8	0.0	No
R5	L4	44.6	49.9	51.0	6.4	Yes	37.8	45.4	0.8	No	51.2	6.6	0.2	No
R6	L4	44.6	36.2	45.2	0.6	No	36.9	45.3	0.7	No	45.8	1.2	0.6	No
R7	L7	66.3	60.2	67.3	1.0	No	36.8	66.3	0.0	No	67.3	1.0	0.0	No
R8	L5	58.2	50.1	58.8	0.6	No	34.4	58.2	0.0	No	58.8	0.6	0.0	No

[1] Refer to Figure 4.11-2 for the noise receiver locations.
[2] Existing noise level measurement locations are shown on Figure 4.11-1 and the noise levels are shown on Table 4.11-1.
[3] Cumulative development operational noise levels at each receiver location.
[4] Represents the combined existing ambient conditions plus the cumulative development activities.
[5] Does the noise level increase exceed the significance criteria?
[6] Total Project operational noise levels as shown on Table 4.11-12.
[7] Represents the combined existing ambient conditions plus the Project activities, and the noise level increase expected with the addition of the proposed Project activities.
[8] Represents the combined ambient conditions plus the Project activities plus the cumulative development activities.
Source: (Urban Crossroads, Inc., 2017b, Table 9-7)

Table 4.11-20 Year 2035 Off-Site Cumulative Traffic Noise Impacts (dBA Leq)

ID	Road	Segment	Adjacent Planned Land Use[1]	CNEL at Adjacent Land Use[2]		Cumulative		Noise Level Increases		Project-Related	
				Existing Without Project (Table 7-1)	Year 2035 Without Project (Table 7-5)	Increase From Existing[3]	Potential Impact?[4]	Year 2035 Project-Related (Table 7-9)	Project Plus Cumulative[5]	Cumulative Contribution[6]	Cumulatively Considerable Impact?[7]
1	Harvill Av.	s/o Harley Knox Bl.	Business Park	65.9	69.7	3.8	No	1.3	5.7	1.9	No
2	Harvill Av.	n/o Oleander Av.	Business Park	65.6	69.7	4.1	No	1.3	5.9	1.8	No
3	Harvill Av.	s/o Oleander Av.	Business Park	65.5	70.6	5.1	Yes	0.1	6.3	1.2	No
4	I-215 SB Fwy	n/o Harley Knox Bl.	Light Industrial	74.3	76.8	2.5	No	0.0	4.4	1.9	No
5	I-215 SB Fwy	s/o Harley Knox Bl.	Light Industrial	73.8	76.4	2.6	No	0.1	4.5	1.9	No
6	I-215 NB Fwy	n/o Harley Knox Bl.	Light Industrial	73.6	76.9	3.3	Yes	0.3	5.1	1.8	No
7	I-215 NB Fwy	s/o Harley Knox Bl.	Light Industrial	72.9	75.7	2.8	No	0.0	4.6	1.8	No
8	Harley Knox Bl.	e/o Harvill Av.	Business Park	65.1	70.5	5.4	Yes	1.0	6.7	1.3	No
9	Harley Knox Bl.	e/o I-215 SB Fwy Ramps	Light Industrial	66.0	69.6	3.6	No	1.0	5.5	1.9	No
10	Harley Knox Bl.	e/o I-215 NB Fwy Ramps	Light Industrial	67.1	70.8	3.7	No	0.0	5.2	1.5	No
11	Oleander Av.	e/o Driveway 6	Business Park	44.1	62.3	18.2	Yes	3.8	18.4	0.2	No
12	Oleander Av.	w/o Harvill Av.	Business Park	51.0	62.3	11.3	Yes	3.8	12.0	0.7	No

[1] Sources: County of Riverside General Plan, Mead Valley Area Plan Land Use Plan, Figure 3.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.
[3] Increase from Existing without Project to Year 2035 without Project conditions.
[4] Does the cumulative increase without the Project exceed the 3 dBA significance criteria for non-noise-sensitive land uses?
[5] Combined cumulative and Project Year 2035 noise level increases.
[6] Total Project contribution to the cumulative noise level increase.
[7] Does the Project-related contribution to the cumulative noise level increase exceed the 3 dBA significance criteria for non-noise-sensitive land uses?
Source: (Urban Crossroads, Inc., 2017b, Table 7-10)

Table 4.11-21 Mitigated Construction Equipment Noise Summary

Receiver Location[1]	Const. Noise Levels (dBA Leq)			With Temporary Noise Barriers		
	Peak Activity (dBA Leq)[2]	Threshold (dBA Leq)[3]	Threshold Exceeded?[4]	Attenuation (dBA Leq)	Construction Noise Levels (dBA Leq)[5]	Threshold Exceeded?[4]
R1	47.6	65	No	0	47.6	No
R2	52.4	65	No	0	52.4	No
R3	53.2	65	No	0	53.2	No
R4	57.5	65	No	0	57.5	No
R5	55.7	65	No	0	55.7	No
R6	67.9	65	Yes	-6.7	61.2	No
R7	55.3	65	No	0	55.3	No
R8	52.2	65	No	0	52.2	No

[1] Refer to Figure 4.11-2 for noise receiver locations.
[2] Estimated construction noise levels during peak operating conditions, as shown on Table 4.11-10.
[3] Source: County of Riverside General Plan Noise Element, Table N-2.
[4] Do the estimated Project construction noise levels meet the County of Riverside noise standards at the sensitive receiver locations?
[5] Peak construction noise levels with the minimum 6-foot high temporary construction noise barrier.
Temporary barrier attenuation calculations are provided in Appendix 10.2 of *Technical Appendix I.*
Source: (Urban Crossroads, Inc., 2017b, Table 10-10)

LEGEND:

▲ Noise Measurement Locations

Source(s): Urban Crossroads (01-31-2017)

Figure 4.11-1

NOT TO SCALE

NOISE MEASUREMENT LOCATIONS

LEGEND

Receiver Locations

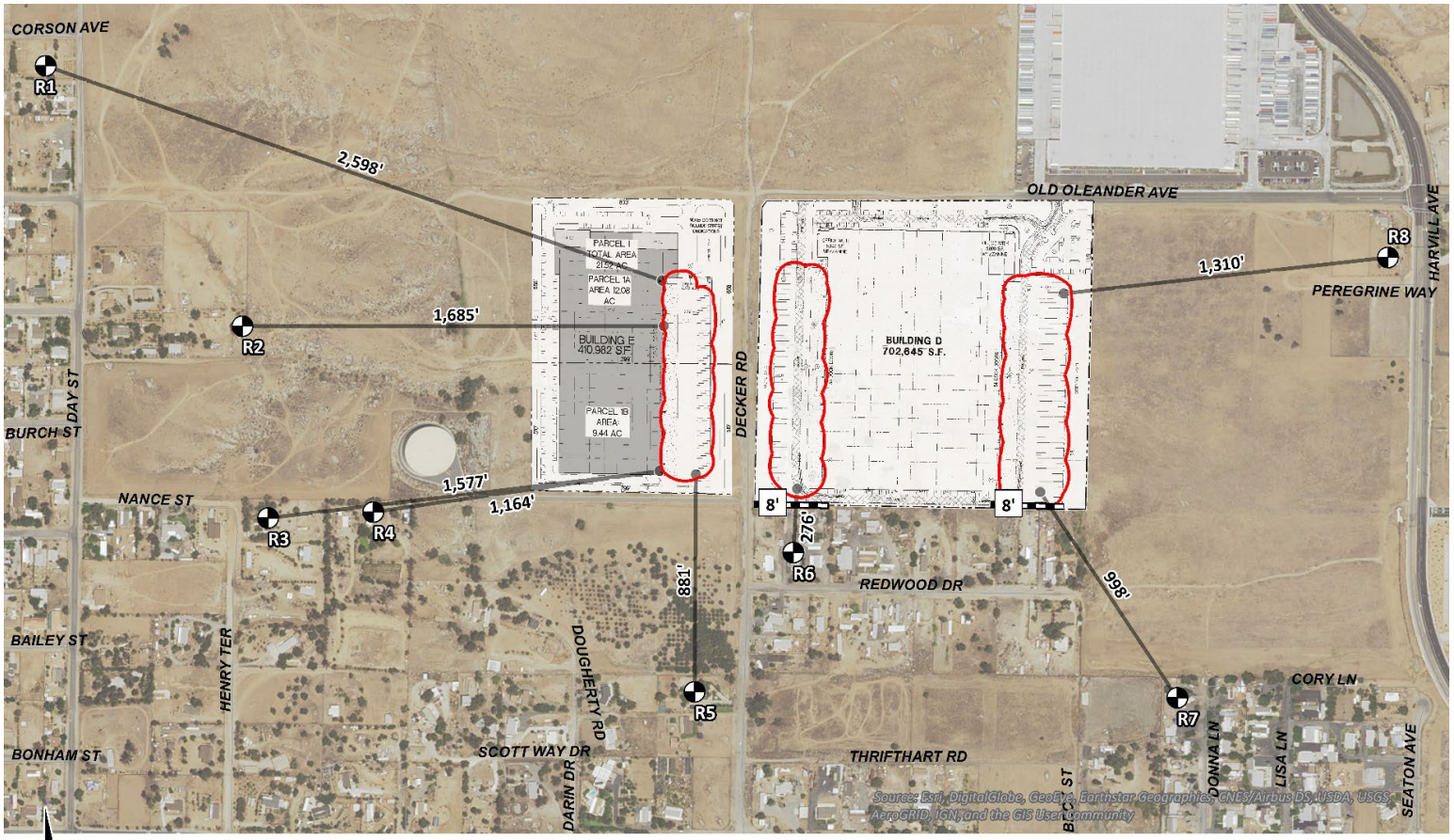
Distance from receiver to Project site boundary (in feet)

Source(s): Urban Crossroads (01-31-2017)

Figure 4.11-2

NOT TO SCALE

NOISE RECEIVER LOCATIONS



Source(s): Urban Crossroads (01-31-2017)

Figure 4.11-3

NOT TO SCALE

OPERATIONAL NOISE SOURCE LOCATIONS

4.12 POPULATION AND HOUSING

This subsection discloses existing population and housing data for western Riverside County and assesses the potential for impacts on population and housing associated with implementation of the Project. At the time the Notice of Preparation (NOP) for this EIR was issued was issued (August 2015), the County of Riverside 2003 General Plan was in effect and the County was in the process of updating its General Plan. The County approved the General Plan Update in December 2015. Because the information pertaining to population and housing was more up-to-date in the General Plan Update, as well as the *County of Riverside General Plan Housing Element 2013-2021*, as compared to the 2003 General Plan, the information in those more recent documents is cited herein. (Riverside County, 2015c) Population projections in this Subsection are based on forecasts from the Southern California Association of Governments (SCAG), Western Riverside Council of Governments (WRCOG), and the County of Riverside General Plan Housing Element 2013-2021.

4.12.1 EXISTING CONDITIONS

The Project site consists mostly of vacant, undeveloped land, with exception of the southwestern portion of the Building D Site which contains a mobile home, outbuildings, and a concrete pad that is used for the storage of construction equipment. As depicted previously on Figure 2-1, *Surrounding Land Uses and Development*, lands north of the Project site are largely undeveloped, with exception of a recently-constructed industrial warehouse building located north of Oleander Road and east of Harvill Avenue. To the south of the Project site are scattered, rural residences and business ventures, and undeveloped land. Near the southwest corner of the Project site is a water tank owned by the Eastern Municipal Water District (EMWD). To the west of the Project site are undeveloped lands, beyond which are single family homes. To the east of the Project site are undeveloped lands, several scattered single family residences and an industrial warehouse building located along the eastern edge of Harvill Avenue. Approximately 0.4 miles to the east is I-215, beyond which are the March Air Reserve Base (MARB) and an area of the City of Moreno Valley mostly developed with industrial warehouse buildings.

A. Regional Growth

Between April 1, 2000, and January 1, 2012, Riverside County's population grew by over 699,000 people or by approximately 45 percent. The western portion of the County (including unincorporated areas and member jurisdictions of the WRCOG) grew at a faster pace (76%) than the eastern portion (including unincorporated areas and member jurisdictions of the Coachella Valley Association of Governments (CVAG)) (36%). Riverside County grew four and a half times as fast as the region covered by SCAG, which includes the counties of Los Angeles, Orange, Riverside, San Bernardino, Ventura, and Imperial Counties. As shown on Table 4.12-1, *Regional Population Growth Trends 2000-2012*, the SCAG region grew 10 percent during this same time period. Because the draft *Housing Element* addresses the unincorporated portions of the County, it is important to note that the population in the unincorporated areas in the western portion of the County declined by 23 percent between 2000 and 2012 due to the incorporation of the cities of Eastvale, Jurupa Valley, Menifee, and Wildomar,

while the eastern portion of the unincorporated County's population grew by approximately 19 percent. (Riverside County, 2016, pp. H-73 and H-74)

Table 4.12-1 Regional Population Growth Trends 2000-2012

Area	4/1/2000 [1]	4/1/2010 [1]	1/1/2012 [2]	Change 2000-2012 (%)
Riverside County	1,545,387	2,189,641	2,244,399	45%
Cities	1,124,666	1,685,249	1,887,766	68%
Unincorporated	420,721	504,392	356,633	-15%
				WRCOG Area
Cities	848,413	1,467,188	1,495,621	76%
Unincorporated	351,652	423,231	271,173	-23%
				CVAG Area
Cities	276,253	367,335	375,323	36%
Unincorporated	69,069	82,444	82,444	19%
SCAG Region	16,516,703	18,421,491	18,249,494	10%
California	33,873,086	37,559,440	37,668,804	11%

Sources:
1. US Census Bureau, 2010.
2. California Department of Finance, 2012.

(Riverside County, 2016, Table H-2)

B. *Riverside County Housing Element*

The County of Riverside General Plan Housing Element 2013-2021 (in draft form at the time this EIR was prepared) identifies and establishes the County's policies with respect to meeting the housing needs of existing and future residents in Riverside County and closely follows the County's General Plan Update approved in December 2015. (Riverside County, 2016, pp. H-1 and H-11)

State law requires that jurisdictions evaluate their Housing Elements every eight years to determine their effectiveness in achieving county and state housing goals and objectives, and to adopt an update Housing Element that reflects the results of this evaluation. The current statutory update in the SCAG region covers the planning period October 15, 2013 through October 15, 2021. The County's Housing Element represents a comprehensive update of its former General Plan Housing Element to bring it into compliance with state housing law and to meet the statutory update requirement. (Riverside County, 2016, p. H-1)

C. *Housing Inventory*

The vacancy rate is an indicator of the general availability of housing. It also reflects how well available units meet the current housing market demand. A low vacancy rate suggests that households may have difficulty finding housing within their price range whereas a high vacancy rate may indicate

either an imbalance between household characteristics and the type of available units, or an oversupply of housing units. The draft *2013-2021 Housing Element* indicates a 26 percent vacancy rate in the eastern County area and a 12 percent vacancy rate in the western portion of Riverside County, for a combined 16 percent vacancy rate for the unincorporated areas of Riverside County in 2010. (Riverside County, 2016, p. H-92)

D. Jobs/Housing Balance

Riverside County serves as a bedroom community that supplies a substantial portion of the labor pool for the Los-Angeles-Orange County metropolitan area and San Diego County. As shown in Table 4.12-2, *Jobs-Household Ratios, Unincorporated Riverside County 2000-2010*, between 2000 and 2010, Riverside County's jobs-to-housing ratio slightly increased from 1.02 to 1.07. The unincorporated area of Riverside County experienced a severe shortage of jobs with only 0.57 jobs per household in the western portion of the County and 0.777 jobs per household in the eastern portion of the County in 2010.

Table 4.12-2 Jobs-Household Ratios, Unincorporated Riverside County 2000-2010

	Total County		Western	Eastern	Total
	2000	2010	2010	2010	2010
Employment	517,000	700,266	47,339	20,116	67,455
Households	506,218	653,977	83,746	26,120	109,866
Jobs-Household Ratios	1.02	1.07	0.57	0.77	0.61

Source: Riverside County Center for Demographic Research, 2012.
Total employment includes wage and salary employment from Employment Development Department plus self-employment.
Total households from the Department of Finance.
Note: Data not seasonally adjusted.

(Riverside County, 2016, Table H-9)

4.12.2 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to population and housing if the Project or any Project-related component would:

a) Displace substantial numbers of existing housing, necessitating the construction of replacement housing else-where;

b) Create a demand for additional housing, particularly housing affordable to households earning 80% or less of the County's median income;

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere;

d) Affect a County Redevelopment Project Area;

e) Cumulatively exceed official regional or local population projections; or

f) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

4.12.3 IMPACT ANALYSIS

Threshold a)	***Would the Project displace substantial numbers of existing housing, necessitating the construction of replacement housing else-where?***
Threshold c)	***Would the Project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?***

Under existing conditions, the southwestern portion of the Building D Site contains one mobile home. The Project would remove this mobile home from the Building D Site but removal of one structure would not displace substantial numbers of people or substantial numbers of existing housing. The removal of one mobile home is not substantial, considering that there are over 83,000 households in western Riverside County. The removal of one mobile home from the Building D Site would not necessitate the construction of replacement housing elsewhere. Accordingly, impacts would be less than significant.

Threshold b)	***Would the Project create a demand for additional housing, particularly housing affordable to households earning 80% or less of the County's median income?***

The Project proposes to develop the Project site with two business park buildings. For purposes of analysis, employment estimates were calculated using data and average employment density factors utilized in the County of Riverside General Plan. The General Plan estimated that light industrial (LI) business would employ one (1) worker for every 1,030 s.f. of building area (1,113,627 s.f. ÷ 1,030 s.f. = 1,030). Based on this employment generation rate, the Project is expected to create approximately 1, 030 new, recurring jobs. (Riverside County, 2016, Appendix E-1, Table E-5)

As discussed in Subsection 4.12.1, unincorporated Riverside County had a 16 percent vacancy rate in 2010. It is expected that the job opportunities created by the Project would be filled by the existing residents in Riverside County. However, if residents are drawn from the surrounding region, it is anticipated that the vacancy rate of unincorporated Riverside County would fill those housing needs. Accordingly, the proposed Project would not create a demand for additional housing and a less than significant impact would occur.

Threshold d)	***Would the Project affect a County Redevelopment Project Area?***

The Riverside County Redevelopment Agency was dissolved as of February 1, 2012. Due to the dissolution of the Riverside County Redevelopment Agency, the Project has no potential to adversely impact a County Redevelopment Area. No impact would occur.

Threshold e) ***Would the Project cumulatively exceed official regional or local population projections?***

The Project site is a proposed business park that would not generate a residential population. It is anticipated that the employment base for both the construction and operational phases of the proposed Project would come from the existing population in Riverside County. According to the Bureau of Labor Statistics, in August 2015 the Riverside-San Bernardino-Ontario region's civilian labor force unemployment rate is 6.8%, or approximately 131,300 persons. (BLS, 2015) Furthermore, the anticipated jobs generated as part of the Project are not the types of position necessitating specialized skills and it is anticipated those positions could be filled from the local area. Accordingly, the surrounding area contains an ample supply of potential employees. Therefore, it is not anticipated that the labor demand caused by the proposed Project would result in the addition of residents within Riverside County or surrounding jurisdictions. Therefore, the Project is not expected to be a catalyst for any population increase and no impact associated with population projections would occur.

Threshold f) ***Would the Project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?***

The Project proposes to develop the site with two business park buildings. For purposes of analysis, employment estimates were calculated using data and average employment density factors utilized in the County of Riverside General Plan. The General Plan estimated that light industrial business would employ one (1) worker for every 1,030 s.f. of building area (1,113,627 s.f. ÷ 1,030 s.f. =1,030). Based on this employment generation rate, the Project is expected to create approximately 1,030 new, recurring jobs. (Riverside County, 2016, Appendix E-1, Table E-5) Additionally, the Project would install infrastructure improvements such as paved roads and access to improved and expanded water and sewer lines that could indirectly induce growth in the local area.

As discussed in the impact analysis for Threshold (e), the on-site employment generation would not induce substantial growth in the area because it is anticipated that the Project's future employees would already be living in the Riverside County area. The Project does not propose the construction of any new homes or dwelling units that would directly result in the introduction of new residents to the area. Indirect population growth has the potential to occur when infrastructure improvements are proposed. Increased road access and availability of utility connections are a byproduct of the proposed Project. However, the proposed improvements are specific to the Project and access would not extend beyond the Project sites' frontage with roadways, with the exception of a proposed connection to a proposed storm drain line beneath Oleander Avenue. The Project would not construct any roadways beyond what was already planned by the County of Riverside. Surrounding properties that would have access to or benefit from such improvements are designated by the County of Riverside General Plan for "Business Park," "Light Industrial," and "Very Low Density Residential" land uses. The "Business Park" and "Light Industrial" land uses are not considered to be population increasing land uses, as they would have similar characteristics to the proposed Project (the employees for such developments

would most likely come from within the County for the same reasons as those discussed for this Project). The "Very Low Density Residential" land uses are anticipated to be built out with low density housing, as planned by the County General Plan. Project-related utility improvement would service the Building D Site and the Building E Site and would not induce growth on other parcels. Accordingly, the proposed Project would have a less-than-significant impact related to directly or indirectly inducing substantial population growth in the area.

4.12.4 CUMULATIVE IMPACT ANALYSIS

For purposes of a cumulative effects analysis, the geographic area studied is Riverside County and its incorporated cities, based on buildout of governing General Plans. The proposed Project would not displace substantial numbers of either people or existing housing, and therefore would not necessitate the construction of replacement housing elsewhere. As such, the Project has no potential to contribute to a cumulatively significant impact associated with housing displacement in Riverside County. The Project would supply employment opportunities to people already residing in the area, and, although population growth resulting from the employment opportunities offered at the Project site is not expected, the surrounding area has ample supply of vacant housing and approved housing projects that are not yet constructed to accommodate any population growth in the area that could indirectly occur due to employment-demand generation from the Project and other developments in the area that will offer new employment opportunities. The creation of employment opportunities would benefit Riverside County by helping to achieve a better jobs-to-housing balance, and the County and its incorporated cities have ample housing to support any potential additional residents. As such, a less-than-significant cumulative impact would occur.

The Project is an employment use and is not a population-generating project and thus would not cause direct population growth that would exceed official regional or local population projections. Because no residential housing units are proposed as part of the Project and jobs generated by the Project are expected to be filled by persons that occupy existing homes in the surrounding area and new homes that are approved but not yet built, the Project would have a less than significant and less than cumulatively considerable impact upon population projections.

The on-site employment generation would not induce substantial growth in the area because it is reasonably foreseeable that the Project's future employees are already living in the Riverside County area or would reside in homes that are already approved to be constructed. The Project does not propose the construction of any new homes or dwelling units that would directly result in the introduction of new residents to the area. Surrounding properties that would have access to or benefit from the Project's infrastructure improvements are designated by the County of Riverside General Plan for "Business Park," "Light Industrial," and "Very Low Density Residential" land uses. The "Business Park" and "Light Industrial" land uses are not population increasing land uses because, like the proposed Project, it is reasonably foreseeable based on existing residential vacancy rates, unemployment rates, and the number of homes approved for construction in the surrounding area that have not yet been built, that employees for such developments would most likely come from within the County for the same reasons as those discussed for this Project. Cumulative population and housing

impacts are thus considered to be less than significant. The properties designated for "Very Low Density Residential" land uses near the Project site are anticipated to be built out with low density housing, as planned by the County General Plan. Project-related utility improvement would service the Building D Site and the Building E Site and would not induce growth on other surrounding parcels. Accordingly, the proposed Project would have a less-than-significant and less than cumulatively considerable impact related to directly or indirectly inducing substantial population growth in the area.

4.12.5 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Thresholds (a) and (c) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project site contains one mobile home under existing conditions which would be removed as part of the proposed Project. The removal of one mobile home structure would not result in the displacement of substantial numbers of people or existing housing. A less-than-significant impact would occur.

Threshold (b) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project site is expected to employ approximately 1,030 workers. It is expected that the job opportunities created by the Project would be filled by existing residents in Riverside County and residents of homes that are already approved for construction but not yet built. Therefore, the Project would not create a demand for additional housing, and impacts would be less than significant.

Threshold (d) for the Building D Site and the Building E Site: No Impact. The Riverside County Redevelopment Agency was dissolved in 2012; therefore, the Project would have no potential to impact a County Redevelopment Project Area. No impact would occur.

Threshold (e) for the Building D Site and the Building E Site: No Impact. The Project is an employment-generating use that would not directly cause population growth. Therefore the Project has no potential to exceed regional or local population projections. No impact would occur.

Threshold (f) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would introduce new businesses and infrastructure improvements to the area. The jobs generated by the Project are expected to be filled by existing residents of Riverside County and residents of homes that are already approved for construction but not yet built. In addition, Project-related utility improvements would service the Building D Site and the Building E Site and would not be sized to accommodate unplanned growth on other surrounding parcels. Accordingly, the Project would not induce substantial population growth and impacts would be less than significant.

4.12.6 MITIGATION

Impacts would be less than significant. Mitigation is not required.

4.13 PUBLIC SERVICES

The analysis in this subsection assesses the Project's potential to cause physical impacts to the environment resulting from Project-related service demands placed on the following public services: fire protection, police (sheriff) protection, schools, libraries, and public health services. There are no other public services for which Project-related service demands would have the potential to physically impact the environment. The analysis in this subsection is based in part on the Riverside County EIR No. 521, Section 4-17, *Public Facilities* (Riverside County, 2015d), as well as written communication from the Riverside County Sheriff's Department (RCSD, 2015) and the Cal-Fire – Riverside Unit of the Riverside County Fire Department (RCFD, 2015), which are included in *Technical Appendix N*. A complete list of references utilized in this subsection is contained in EIR Section 7.0, *References*.

4.13.1 EXISTING CONDITIONS

A. *Fire Protection*

Fire protection services to the Project site and surrounding area are provided by the Riverside County Fire Department (RCFD). The RCFD is a full-service fire department that provides fire suppression, emergency medical, rescue, and fire prevention services and is equipped to fight both urban and wildland emergency conditions. The State (CalFire) also has primary responsibility for managing fires on lands designated "State Responsibility Areas" (SRAs). A variety of local fire agencies, for example city fire departments, have jurisdiction over "Local Responsibility Areas" (LRAs). According to the CalFire Riverside Unit 2012 Strategic Fire Plan (page 9), State resources include 14 type 3 engines, one type 2 helicopter, two type 3 air tankers and three bulldozers. County resources include 81 type 1 engines, five type 2 engines, one bulldozer, water tenders, eight medic ambulances, and two breathing supports. Other equipment in the RCFD inventory includes: structural engines, rural engines, brush engines, telesquirts, trucks, paramedic units, a helicopter, hazardous materials unit, incident command units, water tenders, fire crew vehicles, mobile communications centers, breathing support units, lighting units, power supply units, fire dozers, mobile training vans and emergency feeding units (Riverside County, 2015d, pp. 4.17-3 and 4.17-4).

The RCFD calls for service are dispatched from one of 94 fire stations throughout the County, which are separated into 17 battalions with approximately 230 pieces of equipment (Riverside County, 2015d, p. 4.17-3). Within the Project area, the RCFD would serve the Project site from one of two locations:

- **RCFD Station No. 59**: Station 59 is located at 21510 Pinewood Street, Perris, CA 92570 (approximately 1.8 miles southwest of the Project site). This station would be the first engine company to arrive at emergencies at the Project site. Station 59 is staffed 24 hours per day, seven days a week, with a minimum three-person crew, including a paramedic operating "Type-1" structural firefighting apparatus (RCFD, 2015).

- **RCFD Station No. 90:** Station 90 is located at 333 Placentia Avenue Perris, CA 92571 (approximately 3.75 miles southeast of the Project site). This station would be the second engine company to respond to emergencies at the Project site. This Station is staffed 24 hours

per day, seven days a week, with a minimum four-person crew, including a paramedic operating on a 75-foot Quint Aerial truck (RCFD, 2015).

As noted, Station No. 59 is the nearest RCFD fire station to the Project site, with an estimated total response time (TRT) of 7:00 minutes. Station No. 90 is estimated to have a TRT of 9:48 minutes. Other fire stations within the Project vicinity that could respond include Station No. 101 (11:00 minute response time), Station 06 (11:53 minute response time), Station 91 (12:15 minute response time), and Station 04 (12:41 minute response time). Additionally, the RCFD has a mutual aid agreement with the City of Riverside Fire Department and the Federal Fire Department located at March Air Reserve Base (RCFD, 2015).

The County of Riverside also provides fire protection planning and engineering services, in which County fire protection specialists review plans for all new residential developments and commercial and industrial buildings proposed within unincorporated Riverside County. Requirements are established to provide a high degree of life safety and property protection. Common requirements include installation of fire hydrants, sprinkler systems, early warning fire detection systems, and fire safety zones in remote areas. In addition, as disaster and recovery planning are key elements for emergency services, the Riverside County Emergency Services Division maintains two underground Emergency Operation Centers with communications for government use during major events (Riverside County, 2015d, p. 4.17-9).

The Riverside County Fire Department has set a response time goal of first due unit on-scene within 4:00 minutes 90% of the time, and a first alarm assignment operating on the fire ground within 15:00 minutes. According to the RCFD, there are no plans currently to construct any new fire stations in the area of the proposed Project site (RCFD, 2015).

B. Police Protection Services

Police protection services in the Project site's vicinity are provided by the Riverside County Sheriff's Department (RCSD). The RCSD has 4,500 established positions, including roughly 2,300 sworn personnel, to provide community policing services. The Sheriff's Department is a "demand response" agency that maintains limited patrol services. Nine Sheriff Department stations are located throughout Riverside County to provide area-level community service. Police protection services in the Project site's vicinity are provided from the Perris Station, which is located at 137 North Perris Boulevard, Suite A, Perris, CA 92570 (approximately 5.3 miles southeast of the Project site). The Sheriff's Department also operates five adult correction or detention centers located throughout Riverside County. The Riverside County Probation Department operates the juvenile detention facilities (RCSD, 2015; Google Earth, 2015; Riverside County, 2015d, p. 4.17-25).

RCSD calls for service are prioritized as Priority 1 through 4. Priority 1 calls are emergency calls and Priority 2-4 calls are non-emergency calls. Table 4.13-1, *RCSD Perris Station 2014 Average Response Times*, summarizes the average response time data for Calendar Year 2014 in the northern portion of the Perris Station's service area, which encompasses lands to the west of I-215, north of Cajalco Road,

east of Wood Road, and south of Oleander Avenue. The Perris Station encourages "quality of service" over "quantity of service." To this end, response times are second to the quality of service that the RCSD officers are encouraged to provide to the communities they serve (RCSD, 2015).

Table 4.13-1 RCSD Perris Station 2014 Average Response Times

Priority	Total Calls	Average Response Time (Minutes)
1	60	8.15
2	918	25.95
3	843	48.95
4	610	80.36

(RCSD, 2015)

The RCSD maintains a goal of providing 1.0 officer per 1,000 residents, with a longer term goal of increasing the staffing level to 1.2 officers per 1,000 residents by the end of Fiscal Year 2017/2018. As of December 2015, the Project area meets or exceeds the standard of 1.0 officer per 1,000 residents. The RCSD expects that the increased standard will be met through additional funds that have been allocated to the Sheriff's budget for hiring and training additional officers (RCSD, 2015).

C. *School Services*

The Project site lies within the Val Verde Unified School District (VVUSD) (RCIT, 2015). The nearest schools to the Project site are the Tomas Rivera Middle School, located approximately 0.98 mile southwest of the Project site at 21675 Martin Street, and the Mead Valley Elementary School, located approximately 1.2 mile west of the Project site at 21-100 Oleander Ave (Google Earth, 2015). Under existing conditions, the Project site places no demand on the public school system because the Project site is undeveloped with no residents on site except for one mobile home that is not occupied by any school children.

D. *Library Facilities*

The Riverside County Library System owns and operates 35 library branches throughout the County, in addition to mobile "Bookmobiles" within western Riverside County and the Coachella Valley. In addition, the Riverside County Library System operates an automated network that currently deploys over 350 computer/terminal workstations in the library branches of the Riverside County Library System, Riverside Public Library, Moreno Valley Library, Murrieta Public Library, Murrieta Valley High School, and College of the Desert. The network can also be accessed by Riverside County residents via the Internet. The library system manages the library catalog of the 1.3 million items in the library system and the annual checkout of over 3.5 million books, audios, and videos. For 2010, the Riverside County Library System reported a total of 681,117 'registered borrowers' utilizing County library services (Riverside County, 2015d, pp. 4.17-65 through 4.17-66).

The Riverside County Library System does not maintain a specific numerical factor to analyze the needs for physical library space created by new development. However, the American Library Association suggests that appropriate service criteria would be availability of convenient library facilities and book reserves at a rate of 0.5 square foot of library space and 2.5 volumes per capita. Based on 2010, reported registered borrowers (681,117) and current square footage of library facilities available as of 2014 (333,884), at present facilities provide approximately 0.49 square feet of space per registered borrower (not the Riverside County population as a whole) (Riverside County, 2015d, p. 4.17-66). Under existing conditions, the Project site places no demand on the public library system because the Project site is undeveloped and vacant.

E. Public Health Services

The closest public health service facility to the Project site is the Riverside County Regional Medical Center (RCRMC) located in Moreno Valley at 26520 Cactus Avenue. The RCRMC also operates a number of adjunct clinics. In addition, the Riverside County Department of Public Health operates ten separate clinics located throughout Riverside County. Additional medical facilities and services, such as private/for profit and municipal facilities, also exist within Riverside County (Riverside County, 2015d, p. 4.17-73).

The RCRMC is a 520,000-square foot state-of-the-art tertiary care and level II adult and pediatric facility, licensed for a total of 439 beds. This includes 362 licensed beds in the main acute-care hospital and 77 licensed beds in a separate psychiatric facility (in the Arlington area of Riverside). The RCRMC can provide 200,000 annual patient visits in its specialty outpatient clinics and upwards of 100,000 annual patient visits to its emergency room/trauma unit. The community-based clinics operated by the Riverside County Department of Public Health throughout Riverside County provide a wide array of family care services. Each FCC has at least one family medicine physician on staff and is open from 8:00 a.m. to 5:00 p.m., Monday through Friday (Riverside County, 2015d, pp. 4.17-73 and 4.17-74).

According to the 2008 Regional Medical Facility Profile report, in 2005, there were 80,932 licensed hospital beds in California, a rate of 2.2 beds per 1,000 residents. Riverside County had 2,880 licensed beds, a rate of 1.47 beds per 1,000 residents, which is 33% lower than the California average. No specific adopted criteria are maintained for determining future needs for public hospital or medical clinics. The Riverside County Department of Public Health reports that Riverside County only has 50% of the needed hospital beds necessary to meet current needs. According to the Department and as stated in the Riverside County General Plan Update EIR, while the Family Care Centers are sized to meet current needs, approximately one additional clinic of 15,000 to 20,000 square feet (or corresponding increase in size of an existing clinic) would be needed for every 250,000 person increase in population (Riverside County, 2015d, p. 4.13-3). Under existing conditions, the Project site is vacant and undeveloped and places little to no demand on County health facilities.

F. Regulatory Setting

Riverside County Ordinance No. 659

Ordinance No. 659 is known as the County Development Impact Fee (DIF) which requires a fee payment by developers for the funding of public facilities, including fire protection facilities, sheriff facilities, library books, and public health facilities.

Riverside County Fire Department Fire Protection and Emergency Medical Services Strategic Master Plan

The County of Riverside developed this plan to proactively plan facility, service, and equipment needs for fire protection. It also incorporates the CDF Management Plan for several sub-zones within Riverside County. Implementation of this plan helps reduce potential risks of fire for residents in areas of moderate to high fire danger. (Riverside County, 2015c, p. 4.13-95)

Assembly Bill (AB) 16

In 2002, AB 16 created the Critically Overcrowded School Facilities program, which supplements the new construction provisions within the School Facilities Program (SFP). The SFP provides State of California funding assistance for new facility construction projects and modernization projects. The Critically Overcrowded School Facilities program allows school districts with critically overcrowded school facilities, as determined by the California Department of Education (CDE), to apply for new construction projects in advance of meeting all SFP new construction program requirements. Districts with SFP new construction eligibility and school sites included on a CDE list of source schools may apply. (Riverside County, 2015c, p. 4.17-56)

Leroy F. Greene School Facilities Act of 1998 (Senate Bill [SB] 50)

Senate Bill 50 (SB 50) was enacted by the State Legislature in 1998, which amended existing state law governing school fees. In particular, SB 50 amended prior California Government Code (CGC) Section 65995(a) to prohibit state or local agencies from imposing school impact mitigation fees, dedications or other requirements in excess of those provided in the statute in connection with "any legislative or adjudicative act...by any state or local agency involving...the planning, use, or development of real property...." (Riverside County, 2015c, p. 4.17-56)

The legislation also amended CGC Section 65996(b) to prohibit local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any "legislative or adjudicative act [involving] the planning, use or development of real property." Further, SB 50 established the base amount of allowable developer fees: $1.93 per square foot for residential construction and $0.31 per square foot for commercial. These base amounts are commonly called "Level 1 fees" and are the same caps that were in place at the time SB 50 was enacted. Level 1 fees are subject to inflation adjustment every two years. (Riverside County, 2015c, p. 4.17-59)

4.13.2 BASIS FOR DETERMINING SIGNIFICANCE

The Project would result in a significant impact to public services if the Project or any Project-related component would result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:

a. *Fire Services;*
b. *Sheriff Services;*
c. *Schools;*
d. *Libraries; and/or*
e. *Health Services.*

Based on the above and in accordance with CEQA and Section XIV of CEQA Guidelines Appendix G (OPR, 2009), the analysis below focuses on whether or not the proposed Project would cause a physical environmental change to public service facilities, either from the demand it would place on service facilities or due to a direct physical impact caused by the Project's construction or operation. Services demand in and of itself is not an environmental impact under CEQA unless such demand causes an adverse physical change to the environment.

Public Services

Threshold a) ***Would the proposed Project or any Project-related component result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for Fire Protection Services?***

The Project site receives fire protection services from the RCFD. Development of the Project site with two business park warehouse buildings has the potential to increase the frequency of fire protection calls to the site.

Proposed Building D and Building E are required by law to include fire sprinklers. Further, given the building sizes and occupant types that would be permitted by the proposed Project, the Project Applicant is proposing to install an Early Suppression, Fast Response (ESFR) fire sprinkler system in each building. ESFR systems incorporate high volume, high-pressure sprinkler heads to provide the necessary fire protection, without the need for in-rack sprinklers, for warehouse buildings that may contain high piled storage. While most other sprinkler systems are intended to control the growth of a fire, an ESFR sprinkler system is designed to suppress a fire. To suppress a fire does not necessarily mean that the system will extinguish the fire but rather it is meant to "knock" the fire back down to its

original point of origin. ESFR systems provide warehouse buildings with a high margin of fire safety and also allow more time for emergency responders to reach a fire incident before a fire spreads from its point of origin.

A number of California regulations, including Public Resources Code (PRC) §§ 4290-4299 and California Government Code (CGC) § 51178, also would apply to the proposed Project and would address fire safety. In particular, these sections require minimum state-wide fire safety standards pertaining to: roads for fire equipment access; signage for identifying streets, roads, and buildings; minimum private water supply reserves for emergency fire use; and, fire fuel breaks. In addition, they set fire safety standards for all buildings and structures in, or adjoining, mountainous areas, or forest-, brush- or grass-covered lands or any land covered with flammable material to protect property from wildland fires. Mandatory compliance with California regulations related to fire hazards would reduce the Project's potential to expose people or structures to wildland fire hazard risks (Riverside County, 2015d, p. 4.17-23).

In addition, to ensure adequate fire protection for all residents of Riverside County, the Riverside County Department of Building and Safety and the RCFD enforce fire standards as they review building plans and conduct building inspections. This includes a review for compliance with Riverside County Ordinance No. 787 (Riverside County, 2014), which requires, among other measures, the County to review all future building plans to ensure that every building is positioned in a way that allows adequate access for emergency vehicles and has adequate fire hydrant placement and fire flows (Riverside County, 2015d, p. 4.17-23).

As indicated above, RCFD Station No. 59 is the first responder to the Project site for emergency fire protection services and RCFD Station No. 90 is the second responder. The estimated total response time (TRT) from RCFD Station No. 59 is approximately 7:00 minutes, while the TRT from RCFD Station No. 90 is approximately 9:48 minutes. TRT is broken down by dispatch time (1:30 minutes), turnout time (1:00 minute), and drive time. The RCFD has established a response time goal of first unit due on-scene within 4:00 minutes 90% of the time, and a first alarm assignment operating on the fire ground within 15:00 minutes (RCFD, 2015).

Based on information provided by the RCFD, buildout of the proposed Project would not directly result in or require the physical construction of any new or expanded fire stations or fire protection facilities in the Project area. However, the Project site cannot be reached by the nearest fire stations (RCFD Station Nos. 59 and 90) within the RCFD's response time goal of 4:00 minutes under existing conditions, As such, the RCFD has indicated that the Project would contribute to the RCFD's continued inability to meet its response time goal of 4:00 minutes because the Project and other development projects in the area would result in increased service calls due to the introduction of structures, traffic, and workers to the area. Nonetheless, the RCFD does not have plans to construct a new fire station in the vicinity of the Project site or to physically alter or expand any of its existing facilities in response to increased demand. Although the Project's increased demand on fire services would be impactful to the RCDFD's response times, the impact under CEQA is determined to be less than significant because the Project would be served from existing RCFD fire stations and would not

cause the construction of a new fire station or physical alteration of an existing fire station. Because the RCFD does not have any plans to build a new fire station in the area, the construction of a new fire station is highly speculative. For these reasons, the Project would not cause or contribute to any reasonably foreseeable environmental impacts associated with the provision of fire protection services. The RCFD has not identified the location for a new fire station and has not allocated funding for the construction of a new fire station (RCFD, 2015). The Project would be primarily serviced from existing Fire Stations No. 59 and 90. For these reasons, physical impacts to fire protection facilities would be less than significant. The Project Applicant would be required to comply with Riverside County Ordinance No. 659 (the County Development Impact Fee (DIF)), which requires a fee payment by developers for the funding of public facilities, including fire protection facilities.

Public Services

Threshold b) Would the proposed Project or any Project-related component result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for Sheriff Services?

The Project site receives police protection services from the RCSD. Development of the Project Site with two business park warehouse buildings has the potential to increase the frequency of sheriff calls to the site due to the addition of structures, traffic, and workers.

The proposed Project's design includes security features. Retaining walls, concrete tilt-up screen walls, and/or landscape screening is proposed on the west, south, and east sides of the Building E Site, facing off-site property to the south and west and facing Ellsworth Street to the east. Trucks accessing the Building E Site from Oleander Avenue would pass through a gatehouse and then into a truck court that would be fully secured around its perimeter. The north and west sides of the Building D Site, facing Oleander Avenue and Ellsworth Street are designed to include a concrete screen wall and landscaping and the truck courts would be fully secured. Both buildings also would include exterior security lighting and a check-in gate for trucks and service vehicles. In addition, given the value of goods typical at such sites, the Project Applicant anticipates that individual building occupants would likely elect to install security cameras and/or employ private security to patrol the property.

The RCSD has indicated that current staffing and facilities at the Perris Station, located at 137 North Perris Boulevard, Suite A, Perris, CA 92570, would provide adequate police protection services without the need for the construction of additional facilities or the expansion of existing facilities. The RCSD has indicated that as of Fiscal Year (FY) 2013/2014, the RCSD has achieved the service goal of one sworn officer for every 1,000 residents, and plans on achieving a service ratio of 1.2 sworn officers per 1,000 residents by the end of FY 2017/2018 due to additional funding that has been allocated to the RCSD (RCSD, 2015).

The Project, which proposes the construction and operation of two business park buildings, would not directly result in a permanent increase in the County's population because Riverside County as a whole has an abundance of housing relative to jobs. Data presented in Appendix F-1 to Riverside County General Plan Amendment No. 960 demonstrates that the jobs-housing ratio in the County reflects "net out-commuting," which indicates that existing residents commute outside of the County for employment opportunities. Thus, it is anticipated that future employees of the Project would primarily consist of existing County residents; as such, the Project would not result in a net change to the existing or projected service ratios within the Perris Station service area. (Riverside County, 2015c, Appendix F-1, pp. 8-9). Nonetheless, the Project would result in an incremental increase in demand on the RCSD due to increased calls to the Project site, which could adversely affect service response times within the Perris Station's service area. Although the RCSD encourages "quality of service" over "quantity of service," indicating that response times are secondary to quality of service, the Project's incremental increase in demands for police-protection services would need to be accommodated by the RCSD.

As noted above, based on information from the RCSD, Project implementation would not result in or require new or expanded sheriff service facilities. In addition, no sheriff stations are located on the site or are planned to be located on the site, so there is no potential for the Project to have a direct physical impact any sheriff service facility. For these reasons, physical impacts to sheriff facilities would be less than significant (RCSD, 2015). The Project Applicant would be required to comply with Riverside County Ordinance No. 659 (the County DIF), which requires a fee payment by developers for the funding of public facilities, including sheriff service facilities.

Public Services

Threshold c) Would the proposed Project or any Project-related component result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for School Services?

Development of the property with two business park warehouse buildings would not create a direct demand for public school services, as the property would contain non-residential uses that would not directly generate any school-aged children requiring public education. The proposed Project would not directly generate students and is not expected to indirectly draw a substantial number of students to the area for the reasons discussed above under Threshold (b). In summary, jobs and housing data presented in Appendix F-1 to Riverside County General Plan Amendment No. 960 demonstrates that future employees of the Project would primarily consist of existing County residents; as such, the Project would not affect the existing or projected housing supply, and thus the school-aged population, in the County. As such, the proposed Project would not directly cause or contribute to a need to construct new or physically altered public school facilities.

Although the Project would not directly create a demand for additional public school services, the Project Applicant would still be required to contribute fees to the Val Verde Unified School District (VVUSD) in compliance with California Senate Bill 50 (SB 50, Greene), California Government Code §§ 65995.5–65998, which allows school districts to collect fees from new developments to offset the costs associated with increasing school capacity needs. The payment of school mitigation impact fees authorized by SB 50 is deemed to provide "full and complete mitigation of impacts" on school facilities from the development of real property (California Government Code Section 65995).

Project implementation would not result in or require new or expanded public school facilities. In addition, no schools are located on the site or are planned to be located on the site, so there is no potential for the Project to have a direct physical impact on any school. For these reasons, impacts to school facilities would be less than significant.

Public Services

Threshold d) ***Would the proposed Project or any Project-related component result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for Library Services?***

Development of the Project site with two business park warehouse buildings and associated site improvements would not directly create a demand for public library facilities and would not directly result in the need to modify existing or construct new library buildings. Demand placed on libraries is based on the generation of a resident population associated with a person's place of residence, and not typically their place of employment. As discussed above under Threshold (b), based on the County-wide jobs and housing data presented in Appendix F-1 to Riverside County General Plan Amendment No. 960, the Project would not result in an increase in the County's population and would therefore not directly result in an increased demand for library facilities. Accordingly, Project-related impacts to library facilities would be less than significant. There are no other public services for which Project-related service demands would have the potential to physically impact public facilities. The Project Applicant would be required to comply with Riverside County Ordinance No. 659 (the County DIF), which requires a fee payment by developers for the funding of public facilities, including public libraries and other public facilities.

Public Services

Threshold e) ***Would the proposed Project or any Project-related component result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for Health Services?***

As indicated above under the discussion and analysis of Threshold (b), based on the jobs and housing data presented in Appendix F-1 to Riverside County General Plan Amendment No. 960, implementation of the proposed Project is not anticipated to result in an increase in the County's population because Riverside County as a whole has an abundance of housing relative to jobs (Riverside County, 2015c, Appendix F-1, pp. 8-9). As such, it is not anticipated that the proposed Project would result in a substantial increase in demand for public and/or private health care facilities. Moreover, the provision of private health care, which serves a majority of County residents, is largely based on economic factors and demand and is beyond the scope of analysis required for this EIR. Nonetheless, the Project could result in an incremental increase in demand for health services associated with the Project's addition of employees in the area. Existing public health facilities would accommodate nominal increases in demand, such as demand from the Project. Project implementation would not result in or require the physical construction, expansion, or alteration of public health facilities; therefore, impacts would be less than significant. The Project Applicant would be required to comply with Riverside County Ordinance 659 (the County DIF), which requires a fee payment by developers for the funding of public facilities, including public health facilities.

4.13.3 CUMULATIVE IMPACT ANALYSIS

For purposes of analysis herein, the Project's cumulative study area comprises the service areas of the RCFD, RCSD, VVSD, the Riverside County Library System, and western Riverside County for the analysis of public health services.

As noted in the impact analysis for Threshold (a), buildout of the proposed Project would not result in the physical construction of any new or expanded fire stations. The RCFD has indicated that the Project would cumulatively affect the RCFD's ability to provide an acceptable level of service because RCFD response time goals to the Project site are not currently met and will continue to not be met as more structures, traffic, and workers are introduced in the area (RCFD, 2015). However, impacts on service demands are not considered significant under CEQA unless they manifest into physical impacts to the environment. Because the RCFD does not have any plans to construct a new fire station in the vicinity of the Project site and intends to service the Project site and its surrounding area from existing fire stations, any physical impacts associated with new or modified fire protection facilities is highly speculative. As such, the Project's direct and cumulative impacts are less than significant.

As noted in the impact analysis for Threshold (b), Project implementation would not result in or require the physical construction of new or expanded police protection facilities. Additionally, the Project is

not expected to result in a change in the County's service population, therefore the Project would not adversely affect the RCSD service goal to provide 1.2 officers per 1,000 residents by FY 2017/2018. However, the Project would result in an incremental increase in demand on the RCSD which could adversely affect service response times within the Perris Station's service area. Although the RCSD encourages "quality of service" over "quantity of service," indicating that response times are secondary to quality of service, the Project's incremental increase in demand for sheriff services would need to be accommodated by the RCSD (RCSD, 2015). Nonetheless, because the RCSD does not plan to construct or physically alter a sheriff's station as the result of cumulative growth in the vicinity of the Project site, the cumulative impact under CEQA is less than significant.

The proposed Project and all other development projects in Riverside County are required to comply with County's Development Impact Fee (DIF) Ordinance (Riverside County Ordinance No. 659), which requires payment of a development mitigation fee to assist in providing revenue that the County can use to improve public facilities and/or equipment, to offset the incremental increase in the demand for fire and police protection services, as well as other public services such as public health care.

With respect to school services, the Project would not directly increase the County's population and is not expected to result in an indirect increase in the County's population, and therefore would have no impact on school services. Regardless, the Project Applicant would be required to contribute fees to the VVSD in compliance with California Senate Bill 50 (SB 50, Greene). The payment of school mitigation impact fees authorized by SB 50 is deemed to provide "full and complete mitigation of impacts" on school facilities from the development of real property (California Government Code Section 65995). Accordingly, Project impacts to school services would be less-than-cumulatively considerable.

The Project also would have less-than-significant and less than cumulatively considerable impacts to library services because the Project would not directly create a demand for public library facilities and would not directly result in the need to modify existing or construct new libraries.

Although the proposed Project is not expected to result in an increase in the County's service population, the construction and operation of two business park warehouse buildings on the site could result in an incremental increase in demand for health services due to the addition of employees in the area. Cumulative growth is not expected to result in or require the physical construction, expansion, or alteration of public health facilities; therefore, the Project's impacts would be less than cumulatively considerable.

4.13.4 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold (a) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would introduce structures, traffic, and workers to the Project site, which would increase the demand for fire protection services provided by the Riverside County Fire Department (RCFD). The increased demand would adversely affect the RCFD's ability to meet its response time goals from Station 59 (located at 21510 Pinewood Street, Perris) and Station No. 90 (located at 333 Placentia

Avenue Perris). Although demand would be increased and the RCFD's response time goal of 4:00 minutes would not be met to the Project site, the RCFD's existing fire stations have adequate physical capacity to service the Project. Fire hydrants are proposed on the Project site and an Early Suppression, Fast Response (ESFR) fire sprinkler system is proposed to be installed in each building. The RCFD does not have plans to construct a new fire station or physically expand fire protection facilities in the Project site's vicinity; therefore, the Project would have no physical environmental effects on fire protection facilities. Increased demand, unless it results in some form of a physical environmental impact, is not an environmental effect under CEQA; thus, impacts are less than significant.

Threshold (b) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would introduce structures, traffic, and workers to the Project site, which would increase the demand for sheriff services provided by the Riverside County Sheriff's Department (RCSD). Service to the Project site is provided by the RCSD Perris Station, and the RCSD has no plans to physically construct or expand a station due to the Project or other growth in the area. As such, the Project would have no physical environmental effects on sheriff facilities. Increased demand, unless it results in some form of a physical environmental impact, is not an environmental effect under CEQA; thus, impacts are less than significant.

Threshold (c) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would not result in or require new or expanded public school facilities and would not result in any direct demand for school facilities. There is no potential for the Project to have a direct physical impact on any school. For these reasons, less-than-significant impacts to school facilities would occur.

Threshold (d) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would not result in or require new or expanded public library facilities and would not result in any direct demand for library space. There is no potential for the Project to have a direct physical impact on any library. For these reasons, less-than-significant impacts to library facilities would occur.

Threshold (e) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would result in an incremental increase in demand for public health services associated with persons that would be employed at or visit the Project site. However, because the Project would not result in or require the physical construction or alteration of public health facilities to accommodate the Project's demand, impacts to public health facilities would be less than significant.

4.13.5 MITIGATION

Applicable County Regulations and Design Requirements

The following are applicable regulations and design requirements to which the Project is required to comply. Although these regulations and requirements technically do not meet CEQA's definition for mitigation, they are listed below for information purposes.

- The Project Applicant shall comply with the County's Development Impact Fee (DIF) Ordinance (Riverside County Ordinance No. 659), which requires payment of a development

mitigation fee to assist in providing revenue that the County can use to improve public facilities and/or equipment, to offset the incremental increase in the demand for fire, police protection, and health care services that would be created by the Project.

- The Project Applicant shall comply with provisions California Government Code §§ 65995.5-65998 by payment of required school impact fees to the Val Verde Unified School District, in accordance with the District's Level 1 Fee Schedule.

Mitigation Measures

Impacts would be less than significant. No mitigation is required.

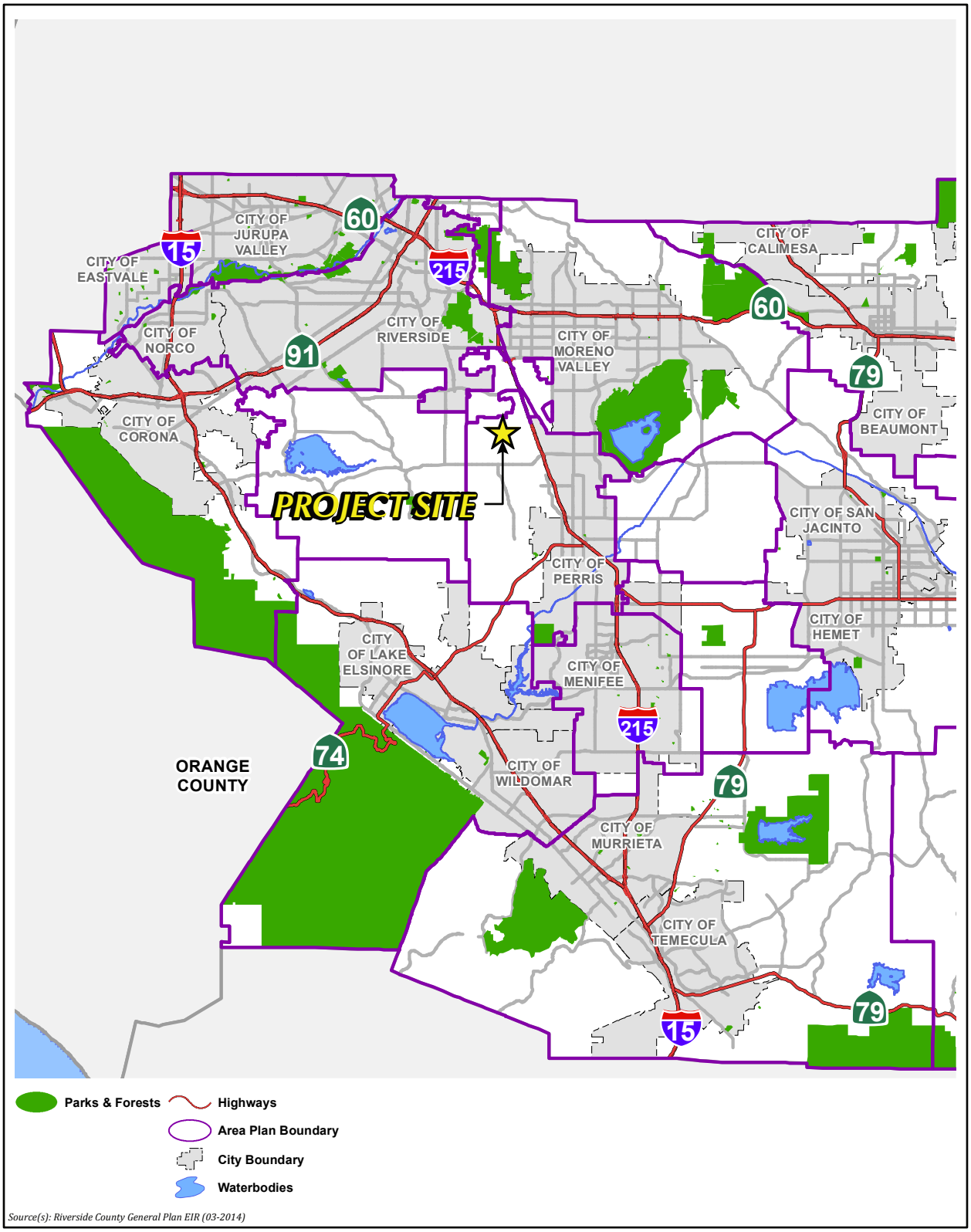
4.14 RECREATION

4.14.1 EXISTING CONDITIONS

The Riverside County Regional Park and Open Space District (Park District) acquires, manages, develops, and maintains 27 neighborhood and regional parks throughout Riverside County. The Park District maintains approximately 71,700 acres of land including 150 miles of multi-purpose recreational trails, seven archeological sites, 16 wildlife reserves, and natural areas. (Riverside County, 2015d, p. 4.16-8) The locations of existing parks and recreation areas in unincorporated Riverside County are shown in Figure 4.14-1, *Parks, Forests, and Recreation Areas in Riverside County*. The closest recreation area to the Project site is the 8,800 acre Lake Perris State Recreation Area, which is located approximately 6.0 miles east of the Project site. Recreation activities available at the Lake Perris State Recreation area include fishing, water sports, bird watching, hiking, climbing, camping, and horseback riding. The State Recreation Area is visited by nearly one million people from the surrounding communities each year. (California State Parks, 2013)

The four park and recreation districts located within Western Riverside County are: 1) Beaumont-Cherry Valley; 2) Desert; 3) Jurupa; and 4) Valley Wide. Together, these four districts provide approximately 27 neighborhood and community parks accounting for approximately 275 acres of parkland. Additionally, some County Service Areas (CSAs) also provide local park maintenance services, often for parks constructed as part of development projects. The cities within Riverside County also offer numerous park and recreational facilities resulting in approximately 215 parks over 1,500 acres. However, these city facilities are outside of the County's jurisdiction. (Riverside County, 2015d, p. 4.16-1) The Project site is not located within a park and recreation district or within a CSA that provides local park maintenance services.

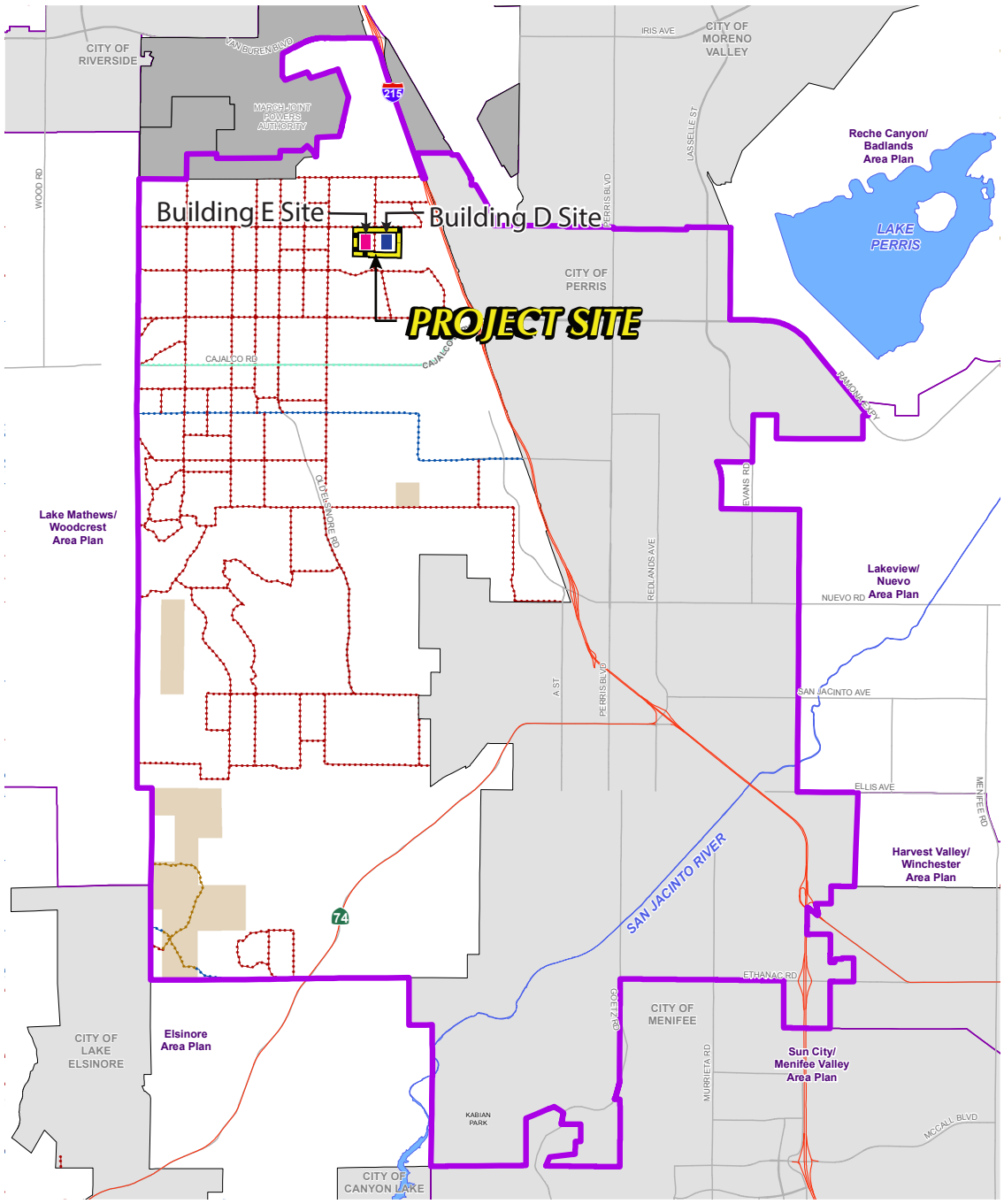
The County of Riverside General Plan includes a county trail system to provide connectivity among various recreational areas and regional trails, as well as policies to ensure coordination of trails and future development. The General Plan Circulation Element contains standards for two basic types of county trails: regional trails and community trails. (Riverside County, 2015d, p. 4.16-11) As shown on Figure 4.14-2, *Mead Valley Area Plan Trails and Bikeway System*, community trails are planned along Oleander Avenue and Ellsworth Street adjacent to the Project site. As shown in Figure 4.14-2, the extensive trail system mainly follows the vehicular roadway circulation routes. Community trails are designed to connect to the regional trail system as well as provide connectivity throughout communities. Trails are designed for trail users preferring a soft trail surface and are typically maintained by a local park and recreation district or other governmental entity. (Riverside County, 2015d, p. 4.16-11)



Source(s): Riverside County General Plan EIR (03-2014)

NOT TO SCALE

Figure 4.14-1
PARKS, FORESTS, AND RECREATION AREAS IN RIVERSIDE COUNTY



Source(s): Riverside County General Plan (12-2013)

Figure 4.14-2

NOT TO SCALE

MEAD VALLEY AREA PLAN TRAILS AND BIKEWAY SYSTEM

4.14.2 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to parks and recreation and recreational trails if it would:

Parks and Recreation

a) *Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment;*

b) *Include the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated;*

c) *Be located within a Community Service Area (CSA) or recreation and park district with a Community Parks and Recreation Plan (Quimby fees).*

Recreational Trails

a) *Cause an impact to recreational trails.*

4.14.3 IMPACT ANALYSIS

Parks and Recreation	
Threshold a)	***Would the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?***
Threshold b)	***Would the Project include the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?***

The Project proposes to develop the Project site with two business park warehouse buildings. The Project does not propose to include any public or private recreational facilities and also does not propose any type of residential use or other land use which would generate a population that would require the construction or expansion of recreational facilities. Also, the Project does not propose any type of residential use or other land use that would generate a population that would increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur. Accordingly, no impact would occur.

Parks and Recreation	
Threshold c)	***Would the Project be located within a Community Service Area (CSA) or recreation and park district with a Community Parks and Recreation Plan (Quimby fees)?***

According to Riverside County GIS, the Project site is located within CSA 117; however, CSA 117 was established for street lighting services, and does not address recreational facilities. Accordingly,

the Project site is not located within a CSA that provides local park maintenance services as discussed in Subsection 4.14.1. The Project site also is not located in any recreation and parks districts.

Quimby fees refer to an in lieu fee program that applies to residential development if the development does not provide on-site public park space. Because the proposed Project proposes two business park warehouse buildings that proposes non-residential development, Quimby fees would not be required of the Project. Accordingly, no impact would occur.

Recreational Trails
Threshold a) Would the Project cause an impact to recreational trails?

As shown on Figure 4.14-2, *Mead Valley Area Plan Trails and Bikeway System*, the County of Riverside identifies planned trails in the immediate vicinity of the Project site, including "Community Trails" along Oleander Avenue and Ellsworth Street adjacent to the Project site. The County of Riverside General Plan defines community trails as trails that are designed to link areas of a community to the regional trail system and to link areas of a community with each other. Such trails are typically maintained and operated by local parks and recreation district or other governmental entities empowered and funded to maintain trails. Community trails are to be sited within an easement or portions of road right-of-ways of up to 14-feet wide. (Riverside County, 2015c, p. C-35) The proposed Tentative Parcel Maps for the Building D Site and the Building E Site designate a 14-foot wide trail easement paralleling Oleander Avenue along the Project site's frontage. Similarly, the proposed Building D Site Tentative Parcel Map designates a 14-foot wide trail easement paralleling the east side of Ellsworth Street along the Building D Site's frontage. A 5-foot sidewalk would be provided in an 18-foot wide parkway on the west side of Ellsworth Street along the Building E Site's frontage; a trail easement is not required on the west side of Ellsworth Street. Ground disturbance in the trail easement areas are an inherent part of the proposed Project's grading plan, the environmental effects of which are evaluated throughout this EIR. Implementation of the Project would not preclude the County's ability to establish a planned community trail along other road segments in the community. Under existing conditions, there is no recreational trail present along Oleander Avenue or Ellsworth Street adjacent to the Project site, so the Project has no potential to physically impact an existing trail. For these reasons, the Project would not cause an impact to recreational trails and impacts would be less than significant.

4.14.4 CUMULATIVE IMPACT ANALYSIS

The Project proposes to develop the Project site with two business park warehouse buildings. Accordingly, the Project does not include recreational facilities and the Project does not propose any type of residential use or other land use which would generate a population that would require the construction or expansion of recreational facilities or existing neighborhood or regional parks. Accordingly, no cumulatively considerably impact associated with recreational facility development or use would occur as a result of development of the Project.

The Project would not impact recreational trails on a cumulatively considerable basis. The Project would provide trail easements along the Building D Site and Building E Site frontages with Oleander Avenue and along the Building D Site frontage with Ellsworth Street as called for by the Mead Valley Area Plan. Environmental effects resulting from ground disturbance in the easement areas is evaluated as an inherent part of the Project throughout this EIR. The Project has no potential to physically impact an existing trail, because no trails are located in the Project's development footprint. The Project also would not directly or cumulatively impact the County's ability to establish a planned community trail north of the Project site along Oleander Avenue.

4.14.5 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Parks and Recreation

Threshold (a) and (b) for the Building D Site and the Building E Site: No Impact. The Project does not propose any type of residential use or other land use that would generate a population that would increase the use of recreation facilities or existing neighborhood or regional parks. Parks would not by physically affected by the Project.

Threshold (c) for the Building D Site and the Building E Site: No Impact. The Project does not propose any type of residential use and is not located within a Community Service Area (CSA) or recreation and park district with a Community Parks and Recreation Plan (Quimby fees).

Recreational Trails

Threshold (a) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would not physically impact an existing recreational trail. The Project would provide easements for community trail segments along Oleander Avenue and Ellsworth Street, as called for by the Mead Valley Area Plan. Environmental effects resulting from ground disturbance in the trail easement areas is evaluated as an inherent part of the Project throughout this EIR and in no cases are significant effects identified specifically related to the trail easements.

4.14.6 MITIGATION

Impacts would be less than significant. No mitigation is required.

4.15 TRANSPORTATION

The following analysis is based on two technical studies prepared by Urban Crossroads, Inc. that evaluate the Project's potential to adversely affect local and regional circulation. These studies include: 1) "Knox Business Park Traffic Impact Analysis County of Riverside" (dated June 8, 2015), which is included as *Technical Appendix J1* to this EIR (Urban Crossroads, 2015a); and 2) "Knox Business Park Supplemental Basic Freeway Segment Analysis" (dated June 8, 2015), which is included as *Technical Appendix J2* to this EIR (Urban Crossroads, 2015b).

Please note that *Technical Appendix J1* and *Technical Appendix J2* were prepared prior to the Project Applicant's decision to reduce the size of the Building E Site and the size of its proposed building to the current configurations described in EIR Section 3.0, *Project Description*. Therefore, Urban Crossroads, Inc. prepared a supplemental analysis to address the reduction in size of the Building E Site and its proposed building. The update letter, "Knox Business Park Supplemental Analyis" is dated January 31, 2017 and is appended to the front of *Technical Appendix J1*. Based on the results of Urban Crossroads' Supplemental Analysis, all of the Project's traffic impacts would be less than disclosed in *Technical Appendix J1* and *Technical Appendix J2*.

The above-listed reports were prepared in accordance with the County of Riverside Transportation Department's *Traffic Impact Analysis Preparation Guide*. Also, where appropriate, *Technical Appendices J1* and *J2* address guidelines as identified by the *Riverside County Congestion Management Program* (*CMP*) and the California Department of Transportation (Caltrans) *Guide for the Preparation of Traffic Studies*. These and other reference sources are listed in Section 7.0, *References*, of this EIR. Please note that the segment of Ellsworth Street that passes through the Project site is called "Decker Avenue" in this EIR Subsection and in *Technical Appendices J1 and J2*.

4.15.1 STUDY AREA DESCRIPTION

The geographic area that was evaluated for Project-related effects to the transportation and circulation network (hereafter referred to as the "Project study area" or "study area") was determined as described below.

A. Intersections

The study area includes all intersections at which the Project would add 50 or more peak hour trips, in conformance with the County of Riverside's *Traffic Impact Analysis Preparation Guide* and direction provided by the County of Riverside staff during the Project's traffic study scoping process. A "peak hour trip" is defined as a trip that occurs between the hours of 7:00 AM and 9:00 AM (AM peak hour) or between the hours of 4:00 PM and 6:00 PM (PM peak hour). The "50 peak hour trip" criteria utilized by the County of Riverside is consistent with the methodology used by many other jurisdictions in Southern California and transportation engineering industry best practices, and generally represents a threshold at which a development project's traffic is distinguishable from background traffic. Although each intersection may have unique operating characteristics, this traffic engineering rule of thumb is a valid and proven way to establish a study area. Accordingly, intersections that would

receive fewer than 50 peak hour trips from the Project are not required to be included in the study area, because the Project's contribution of traffic would not be substantial and distinguishable from background traffic (i.e., fewer than 50 peak hour trips) and is considered to be a less-than-significant impact on both a direct and cumulatively considerable basis. (Urban Crossroads, 2015a, pp. 5, 37)

Eleven (11) intersections are located within the Project study area and are listed in Table 4.15-1, *Study Area Intersections*. For ease of reference throughout this EIR Subsection, identification numbers are assigned to each intersection listed in Table 4.15-1 and correspond to the intersection locations identified on Figure 4.15-1, *Study Area Intersection Locations*. In addition to the County of Riverside, the Project study area includes intersections that are wholly or partially under the jurisdictions of the City of Perris and Caltrans. (Urban Crossroads, 2015a, pp. 5-7)

Table 4.15-1 Study Area Intersections

ID	Intersection Location	Jurisdiction	CMP?
1	Driveway 1 / Oleander Avenue – Future Intersection	County of Riverside	No
2	Driveway 2 / Oleander Avenue – Future Intersection	County of Riverside	No
3	Driveway 3 / Oleander Avenue – Future Intersection	County of Riverside	No
4	Decker Road / Oleander Avenue – Future Intersection	County of Riverside	No
5	Driveway 4 / Oleander Avenue – Future Intersection	County of Riverside	No
6	Driveway 5 / Oleander Avenue – Future Intersection	County of Riverside	No
7	Driveway 6 / Oleander Avenue – Future Intersection	County of Riverside	No
8	Harvill Avenue / Harley Knox Boulevard	County of Riverside	No
9	Harvill Avenue / Oleander Avenue	County of Riverside	No
10	I-215 Southbound Ramps / Harley Knox Boulevard	Caltrans, County of Riverside	Yes
11	I-215 Northbound Ramps / Harley Knox Boulevard	Caltrans, City of Perris	Yes

Source: (Urban Crossroads, 2015a, Table 1-1)

B. Freeway Mainline Segments

All freeway mainline segments are under the jurisdiction of Caltrans. To facilitate management of the State highway system, Caltrans is divided into individual districts with each district responsible for State highway system facilities within their geographic area. The Caltrans district with jurisdiction over the Project's geographic area, District 8, requests that quantitative traffic impact analyses for proposed development projects within the Project's geographic area evaluate potential impacts to freeway mainline segments when that project is anticipated to contribute 50 or more two-way peak hour trips to a freeway mainline segment. Because impacts to freeway segments dissipate with distance from the point of entry to the State highway system (i.e., at ramps receiving a project's traffic), Caltrans District 8 has indicated that when a project's traffic volumes dissipate to fewer than 50 peak hour trips on a freeway mainline segment, they become unrecognizable from other traffic on the State highway system. Thus, Caltrans does not require a project's entire vehicular travel path on State highway facilities to be studied. (Caltrans, 2014)

Based on Caltrans guidance, the Project study area includes all freeway mainline segments that would receive 50 or more two-way peak hour trips from the Project. The 24 freeway mainline segments located within the Project study area are listed in Table 4.15-2, *Study Area Freeway Mainline Segments*, and include northbound and southbound segments of I-215. Because I-215 and SR-60 overlap between I-215 and SR-91, the overlapping freeway segments can be referred to as either "I-215" or "SR-60." For purposes of analysis in this subsection and *Technical Appendix J2*, all SR-60 eastbound/westbound mainline segments located west of I-215 and east of SR-91 are referred to as northbound/southbound segments of I-215. For ease of reference throughout this EIR Subsection, identification numbers are assigned to each roadway segment listed Table 4.15-2.

Table 4.15-2 Study Area Freeway Mainline Segments

ID	Freeway	Direction	Segment
1	I-215	Southbound	SR-60/SR-91 Freeway to Blaine St.
2	I-215	Southbound	Blaine St. to University Av.
3	I-215	Southbound	University Av. to Martin Luther King Bl.
4	I-215	Southbound	Martin Luther King Bl. to Central Av.
5	I-215	Southbound	Central Av. to Box Springs Rd.
6	I-215	Southbound	Box Springs Rd. to SR-60/I-215 Freeway
7	I-215	Southbound	SR-60 Freeway to Eucalyptus Av.
8	I-215	Southbound	Eucalyptus Av. to Alessandro Bl.
9	I-215	Southbound	Alessandro Bl. to Cactus Av.
10	I-215	Southbound	Cactus Av. to Van Buren Bl.
11	I-215	Southbound	Van Buren Bl. to Harley Knox Bl.
12	I-215	Southbound	Harley Knox Bl. to Ramona Exwy.
13	I-215	Northbound	SR-60/SR-91 Freeway to Blaine St.
14	I-215	Northbound	Blaine St. to University Av.
15	I-215	Northbound	University Av. to Martin Luther King Bl.
16	I-215	Northbound	Martin Luther King Bl. to Central Av.
17	I-215	Northbound	Central Av. to Box Springs Rd.
18	I-215	Northbound	Box Springs Rd. to SR-60/I-215 Freeway
19	I-215	Northbound	SR-60 Freeway to Eucalyptus Av.
20	I-215	Northbound	Eucalyptus Av. to Alessandro Bl.
21	I-215	Northbound	Alessandro Bl. to Cactus Av.
22	I-215	Northbound	Cactus Av. to Van Buren Bl.
23	I-215	Northbound	Van Buren Bl. to Harley Knox Bl.
24	I-215	Northbound	Harley Knox Bl. to Ramona Exwy.

Source: (Urban Crossroads, 2015b, Table 1)

C. *Freeway Ramp Merge/Diverge Junctions*

The Project study area includes four freeway ramp merge/diverge junctions locations for I-215, in both northbound and southbound locations. The freeway ramp merge/diverge junctions included in the Project study area represent locations where the Project would contribute 50 or more peak hour trips that would merge and diverge across freeway lanes and potentially disrupt traffic flow. The freeway mainline merge/diverge ramp junctions in the Project study area are listed in Table 4.15-3, *Study Area Freeway Merge/Diverge Ramp Junctions*. All freeway ramp junctions are under the jurisdiction of Caltrans. (Urban Crossroads, 2015a, p. 8)

Table 4.15-3 Study Area Freeway Merge/Diverge Ramp Junctions

ID	Freeway Merge/Diverge Ramp Junctions
1	I-215 Freeway – Southbound, Off-Ramp at Harley Knox Boulevard (Diverge)
2	I-215 Freeway – Southbound, On-Ramp at Harley Knox Boulevard (Merge)
3	I-215 Freeway – Northbound, On-Ramp at Harley Knox Boulevard (Merge)
4	I-215 Freeway – Northbound, Off-Ramp at Harley Knox Boulevard (Diverge)

Source: (Urban Crossroads, 2015a, Table 1-3)

D. *Freeway Off-Ramps*

The Project's traffic would access I-215 at Harley Knox Boulevard. As such, a queuing impact analysis was conducted to determine the potential for the Project to cause or contribute to excessive vehicles queues at the Harley Knox Boulevard interchange, which would cause traffic to "spill back" onto the freeway mainline and disrupt vehicle flow. Therefore, the off-ramps are included in the study area.

4.15.2 EXISTING CONDITIONS

The Project site is located within the unincorporated community of Mead Valley in the northwestern portion of Riverside County. The Project site is within the Sphere of Influence (SOI) for the City of Perris. Figure 4.15-2, *County of Riverside General Plan Circulation Element*, and Figure 4.15-3, *City of Perris General Plan Circulation Plan*, show the roadway network for the major roads located adjacent to and surrounding the Project site. The Project site is approximately 0.4-mile west of I-215, 5.8 miles south of SR-60, and approximately 9.5 miles southeast of SR-91.

A. *Existing Intersection Conditions*

1. *Existing Intersection Traffic Counts*

The intersection level of service (LOS) analysis is based on the traffic volumes observed during the peak hour conditions using traffic count data collected in April 2015. The weekday AM and weekday PM peak hour count data is representative of typical weekday peak hour traffic conditions in the study area. Urban Crossroads did not observe anything in the field that would indicate atypical traffic conditions on the count dates, such as construction activity or detour roads, and near-by schools were in session and operating on normal schedules. Existing number of through lanes and intersection controls within the Project study area are shown on Figure 4.15-4, *Existing Number of Through Lanes and Intersection Controls*. (Urban Crossroads, 2015a, p. 37)

The traffic count data includes a tabulation of passenger cars, 2-axle trucks, 3-axle trucks, and 4-or-more axle trucks, in accordance with Riverside County traffic report requirements. Larger vehicles take up more space on the roadway and take longer to accelerate and decelerate than smaller, passenger vehicles; therefore, converting larger vehicle into passenger car equivalents (PCEs) accounts for the effect trucks have on circulation and allows for traffic to be represented as a standardized unit. For purposes of the analysis, a PCE factor of 1.5 was applied to 2-axle truck trips, 2.0 was applied to 3-axle truck trips, and 3.0 was applied for 4-or-more axle truck trips. (Urban Crossroads, 2015a, p. 37). For a more detailed discussion about the methodology used for the traffic counts and the use of PCEs, please refer to EIR Subsection 4.15.3B.

Existing weekday average daily traffic (ADT) volumes on arterial roadways throughout the Project's study area are shown on Figure 4.15-5, *Existing Average Daily Traffic (ADT)*. The existing ADT is presented the PCEs in order to account for passenger cars and larger trucks. Except where specifically noted, all of the vehicle trips/volumes are presented on Figure 4.15-5 and used in the analysis presented in this EIR Subsection are shown in terms of PCEs. (Urban Crossroads, 2015a, p. 38)

2. *Existing Intersection Levels of Service*

Existing peak hour traffic operations were evaluated at Project study area intersections based on the analysis methodologies presented in EIR Subsection 4.15.3. The levels of service (LOS) for the Project study area intersections during peak hours are summarized in Table 4.15-4, *Existing Intersection Levels of Service.* As shown in Table 4.15-4, all intersections in the Project study area operate at acceptable LOS during peak hours under existing conditions. (Urban Crossroads, 2015a, p. 38)

Table 4.15-4 Existing Intersection Levels of Service

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service		Acceptable LOS
			Northbound			Southbound			Eastbound			Westbound							
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM	
1	Dwy. 1 / Oleander Av.		Future Intersection																C
2	Dwy. 2 / Oleander Av.		Future Intersection																C
3	Dwy. 3 / Oleander Av.		Future Intersection																C
4	Decker Rd. / Oleander Av.		Future Intersection																D
5	Dwy. 4 / Oleander Av.		Future Intersection																C
6	Dwy. 5 / Oleander Av.		Future Intersection																C
7	Dwy. 6 / Oleander Av.	CSS	0	0	0	0	1	0	0	1	0	0	1	0	8.9	0.0	A	A	C
8	Harvill Av. / Harley Knox Bl.	TS	1	1	2	1	2	0	2	2	1	2	2	1	32.8	32.2	C	C	D
9	Harvill Av. / Oleander Av.	TS	1	2	0	1	2	1	1	1	0	1	1	0	6.5	4.6	A	A	D
10	I-215 SB Ramps / Harley Knox Bl.	TS	0	0	0	0	1	1	0	2	d	1	2	0	37.0	26.8	D	C	D
11	I-215 NB Ramps / Harley Knox Bl.	TS	0	1	1	0	0	0	1	2	0	0	2	d	13.6	22.2	B	C	D

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; d = Defacto Right Turn Lane

[2] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] CSS = Cross-street Stop; TS = Traffic Signal

[4] Volume-to-capacity ratio is greater than 1.00; Intersection unstable; Level of Service "F".

Source: (Urban Crossroads, 2015a, Table 3-1)

B. Existing Freeway Conditions

Freeway mainline segment and interchange traffic volume data was obtained from Caltrans' Performance System (PeMS) website. The data obtained from Caltrans was dated April 2015, and is the most recent date for which data was available at the time the NOP for this EIR was published (August 31, 2015). In an effort to conduct a conservative analysis, the maximum value observed within three-day period was utilized for the weekday morning (AM) and weekday evening (PM) peak hours. (Urban Crossroads, 2015a, p. 22)

Consistent with industry-standard methodology (i.e., Transportation Research Board's *Highway Capacity Manual*) actual vehicles, as opposed to PCE volumes, were utilized to calculate density and the associated LOS letter grade for each freeway segment. Truck traffic, expressed as a percentage of total traffic, is included as part of the data used to perform the density calculation in an effort to not overstate traffic volumes and potential impacts (Urban Crossroads, 2015a, p. 22).

1. Existing Freeway Mainline Segment Levels of Service

Existing peak hour operations along freeway mainline segments in the Project study area were evaluated using the analysis methodologies presented in EIR Subsection 4.15.3. All freeway mainline segments located in the Project study area operate at an acceptable LOS during the AM and PM peak hours under existing conditions as summarized in Table 4.15-5, *Freeway Mainline Segment Analysis for Existing and Existing plus Project (E+P) Conditions*. (Urban Crossroads, 2015a, p. 43)

2. Existing Freeway Ramp Merge/Diverge Junction Levels of Service

Existing peak hour operations at freeway ramp merge/diverge junctions within the Project study area were evaluated using the analysis methodologies presented in EIR Subsection 4.15.3. As summarized in Table 4.15-6, *Existing Freeway Merge/Diverge Conditions*, all study area freeway ramp merge/diverge junctions operate at acceptable LOS during peak hours. (Urban Crossroads, 2015a, p. 43)

3. Existing Freeway Off-Ramp Levels of Service

Existing freeway ramp queuing in the Project study area was evaluated using the methodologies presented in EIR Subsection 4.15.3. As summarized in Table 4.15-7, *Existing Freeway Off-Ramp Levels of Service*, all freeway ramps in the Project study area feature acceptable stacking lengths under existing conditions. (Urban Crossroads, 2015a, p. 38)

Table 4.15-5 Freeway Mainline Segment Analysis for Existing and Existing plus Project (E+P) Conditions

Freeway	Direction	Mainline Segment	Lanes[1]	Time Period	Existing (2015)			Existing Plus Project		
					Volume	Density[2]	LOS	Volume	Density[2]	LOS
I-215 Freeway	Southbound	SR-60/SR-91 Freeway to Blaine St.	5	AM	4,287	13.6	B	4,317	13.7	B
				PM	5,907	18.8	C	5,922	18.9	C
		Blaine St. to University Av.	4	AM	4,344	17.4	B	4,374	17.5	B
				PM	4,209	16.5	B	4,224	16.6	B
		University Av. to Martin Luther King Bl.	4	AM	4,640	19.0	C	4,670	19.1	C
				PM	5,182	20.8	C	5,197	20.9	C
		Martin Luther King Bl. to Central Av.	5	AM	3,460	11.0	A	3,490	11.1	B
				PM	4,518	14.2	B	4,534	14.2	B
		Central Av. to Box Springs Rd.	5	AM	5,093	16.3	B	5,123	16.4	B
				PM	6,720	21.2	C	6,736	21.3	C
		Box Springs Rd. to SR-60/I-215 Freeway	4	AM	4,643	18.2	C	4,673	18.3	C
				PM	5,966	23.9	C	5,982	23.9	C
		SR-60 Freeway to Eucalyptus Av.	5	AM	6,260	19.9	C	6,306	20.1	C
				PM	6,485	20.7	C	6,509	20.9	C
		Eucalyptus Av. to Alessandro Bl.	3	AM	3,456	18.7	C	3,502	19.0	C
				PM	5,159	30.6	D	5,183	31.0	D
		Alessandro Bl. to Cactus Av.	4	AM	4,985	19.9	C	534	20.2	C
				PM	5,540	22.5	C	5,565	22.6	C
		Cactus Av. to Van Buren Bl.	3	AM	4,693	26.0	D	4,742	26.4	D
				PM	5,354	31.4	D	5,379	31.7	D
		Van Buren Bl. to Harley Knox Bl.	3	AM	2,544	13.4	B	2,593	13.8	B
				PM	3,855	20.5	C	3,880	20.8	C
		Harley Knox Bl. to Ramona Exwy.	3	AM	2,186	11.4	B	2,195	11.5	B
				PM	3,445	18.1	C	3,466	18.2	C
I-215 Freeway	Northbound	SR-60/SR-91 Freeway to Blaine St.	5	AM	3,532	11.2	B	3,545	11.3	B
				PM	3,453	11.0	A	3,487	11.2	B
		Blaine St. to University Av.	5	AM	4,615	14.8	B	4,628	14.9	B
				PM	3,913	12.8	B	3,947	12.9	B
		University Av. to Martin Luther King Bl.	4	AM	6,526	27.7	D	6,539	27.8	D
				PM	5,849	24.3	C	5,883	24.5	C
		Martin Luther King Bl. to Central Av.	4	AM	5,255	21.4	C	5,269	21.5	C
				PM	5,332	21.9	C	5,367	22.0	C
		Central Av. to Box Springs Rd.	5	AM	5,098	16.5	B	5,112	16.6	B
				PM	5,614	18.7	C	5,649	18.8	C
		Box Springs Rd. to SR-60/I-215 Freeway	4	AM	6,028	24.3	C	6,042	24.4	C
				PM	6,305	25.6	C	6,340	25.9	C
		SR-60 Freeway to Eucalyptus Av.	3	AM	3,567	18.8	C	3,588	18.9	C
				PM	3,832	20.4	C	3,885	20.7	C
		Eucalyptus Av. to Alessandro Bl.	3	AM	4,693	26.0	D	4,714	26.2	D
				PM	5,354	31.4	D	5,407	32.2	D
		Alessandro Bl. to Cactus Av.	4	AM	2,724	10.9	A	2,746	11.0	B
				PM	2,523	10.0	A	2,579	10.3	A
		Cactus Av. to Van Buren Bl.	3	AM	3,679	19.6	C	3,701	19.7	C
				PM	2,478	14.1	B	2,734	14.5	B
		Van Buren Bl. to Harley Knox Bl.	3	AM	4,092	22.0	C	4,114	22.2	C
				PM	3,247	17.1	B	3,303	17.5	B
		Harley Knox Bl. to Ramona Exwy.	3	AM	3,721	19.6	C	3,740	19.9	C
				PM	2,779	14.6	B	2,788	14.6	B

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Source: (Urban Crossroads, 2015b, Table 3)

Table 4.15-6 Existing Freeway Merge/Diverge Conditions

Freeway	Direction	Ramp or Segment	Lanes on Freeway[1]	AM Peak Hour		PM Peak Hour	
				Density[2]	LOS	Density[2]	LOS
I-215 Freeway	SB	Off-Ramp at Harley Knox Boulevard	3	20.2	C	27.5	C
		On-Ramp at Harley Knox Boulevard	3	15.1	B	21.5	C
	NB	On-Ramp at Harley Knox Boulevard	3	25.8	C	21.9	C
		Off-Ramp at Harley Knox Boulevard	3	25.1	C	20.0	B

[1] Number of lanes are in the specified direction and is based on existing conditions

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Source: (Urban Crossroads, 2015a, Table 3-4)

Table 4.15-7 Existing Freeway Off-Ramp Levels of Service

Intersection	Movement	Available Stacking Distance (Feet)	95th Percentile Queue (Feet)[2]		Acceptable?[1]	
			AM Peak Hour	PM Peak Hour	AM	PM
I-215 SB Off-Ramp / Harley Knox Bl.	SBL/T	1,330	383	339	Yes	Yes
	SBR	270	44	60	Yes	Yes
I-215 NB Off-Ramp / Harley Knox Bl.	NBL/T	1,120	13	22	Yes	Yes
	NBR	265	47	52	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] Maximum queue length for the approach reported.

Source: (Urban Crossroads, 2015a, Table 3-2)

C. *Existing Mass Transit*

The Project study area is within the service area of the Riverside Transit Authority (RTA), a public transit agency serving the unincorporated Riverside County region. Under existing conditions, there are no bus routes that operate along the roadways within the study area in close proximity to the Project site. (Urban Crossroads, 2015a, p. 37)

There was no commuter rail service in close proximity to the Project site at the time the NOP for this EIR was released for public review; however, the "Perris Valley Line," a 24-mile extension of the Metrolink commuter rail service from Downtown Riverside to Perris, became operational in June 2016. The Perris Valley Line connects to Metrolink's 91 Line, which runs through Corona and Fullerton to Los Angeles. The Perris Valley Line runs along the west side of I-215 and the nearest station to the Project site (Moreno Valley/March Field Station, 14160 Meridian Parkway, Riverside, CA) is located approximately 3.8 miles north of the Project site. (RCTC, n.d.)

D. *Existing Pedestrian and Bicycle Facilities*

Field observations collected by Urban Crossroads in April 2015 indicate nominal pedestrian and bicycle activity within the study area. As shown in Figure 4.15-6, *Riverside County Trails and Bikeway*

System, the County of Riverside identifies planned trails in the immediate vicinity of the Project site, including "Community Trails" along Oleander Avenue and Ellsworth Street ("Decker Road") along the Project site's frontage, as well as along Harvill Avenue (north of Oleander Avenue) and Harley Knox Boulevard within the study area. There are no existing or planned bicycle facilities in the Project's vicinity. (Urban Crossroads, 2015a, p. 31)

E. Existing Truck Routes

While the County of Riverside's General Plan recognizes the trucking industry and the importance of the region's role in the movement of goods, the County has not formally established any truck routes in the unincorporated area of Riverside County. The City of Perris has established local truck routes, which are shown in Figure 4.15-7, *City of Perris Truck Routes*. As shown, Harley Knox Boulevard, east of the I-215 Freeway, is designated as a City of Perris truck route. (Urban Crossroads, 2015a, p. 31)

F. Existing Airport Facilities

The Project site is located approximately 1.1 miles west of the March Air Reserve Base (MARB). Due to the proximity of the Project site to the MARB, the site is subject to the *MARB Airport Land Use Compatibility Plan* (ALUCP). The *MARB ALUCP* identifies land use standards and design criteria for new development located in the proximity of the MARB to ensure compatibility between the airport and surrounding land uses and to maximize public safety. The Project site is located within "Compatibility Zone C2." Within Compatibility Zone C2, highly noise-sensitive outdoor residential uses and hazards to flight are prohibited. (RCALUC, 2014, Map MA-1; Table MA-2)

G. Applicable Plans, Regulations, and Policies

1. SCAG Regional Transportation Plan

The Southern California Association of Governments (SCAG) is a regional agency established pursuant to California Government Code § 6500, also referred to as the Joint Powers Authority law. SCAG is designated as a Council of Governments (COG), a Regional Transportation Planning Agency (RTPA), and a Metropolitan Planning Organization (MPO). The Project site is within SCAG's regional authority. On April 4, 2012, SCAG adopted the *2012-2035 Regional Transportation Plan / Sustainable Communities Strategy* (*RTP/SCS*) with goals to: 1) maximize mobility and accessibility for all people and goods in the region; 2) ensure travel safety and reliability for all people and goods in the region; 3) preserve and ensure a sustainable transportation system; 4) maximize productivity of the transportation system; 5) protect the environment, improve air quality, and promote energy efficiency; 6) encourage land use and growth patterns that complement the transportation investments and improve the cost-effectiveness of expenditures; and 7) maximize the security of the transportation system (SCAG, 2012a, p. 13).

2. Riverside County Congestion Management Program

The *Riverside County Congestion Management Program* (*CMP*) was prepared by the Riverside County Transportation Commission (RCTC). The intent of the *Riverside County CMP* is to more directly link

land use, transportation, and air quality planning and to prompt reasonable growth management programs that would more effectively utilize new and existing transportation funds to alleviate traffic congestion and related impacts and improve air quality. The *Riverside County CMP* was first adopted in December 1992 and has been updated 11 times, with the most recent comprehensive update in December 2011. The *Riverside County CMP* states that deficiencies along the *CMP* system must be identified when they occur so that improvement measures can be identified. Understanding the reason for these deficiencies and identifying ways to reduce the impact of future growth and development along a critical *CMP* corridor is intended to conserve scarce funding resources and help target those resources appropriately.

The *Riverside County CMP* roadway network includes the following intersections in the Project study area (Urban Crossroads, 2015a, p. 7):

- I-215 southbound ramps / Harley Knox Boulevard (Intersection #10);
- I-215 northbound ramps / Harley Knox Boulevard (Intersection #11).

All State highway facilities in Riverside County are designated as *CMP* roadways, including segments of I-215 and SR-60 within the Project study area (RCTC, 2011, pp. 2-1 to 2-3).

3. County of Riverside and City of Perris General Plan Circulation Elements

The General Plans for the County of Riverside and the City of Perris each contain a Circulation Element that is intended to guide the development of the local circulation system in a manner that is compatible with the respective General Plan Land Use Element. To help meet traffic demands and achieve balanced growth, both cities have adopted specific goals and policies, which serve as the basis for their Circulation Element. Refer to *Technical Appendix J1* for a detailed summary of the General Plan Circulation Elements for the County of Riverside and City of Perris.

4. Transportation Uniform Mitigation Fee (TUMF) Program

In 2000, the Western Riverside Council of Governments (WRCOG) established the Transportation Uniform Mitigation Fee (TUMF) Program to mitigate the cumulative regional impacts of projected future growth and new development on the region's arterial highway system. The TUMF Program applies a uniform mitigation fee to new development projects that is collected by each WRCOG member agency, including the County of Riverside. The collected funds are pooled and used by WRCOG to fund transportation network improvements, including roads, bridges, interchanges, and railroad grade separations, identified by the public works departments of WRCOG member agencies and listed in the *Regional System of Highways and Arterials* (*RHSA*). (WRCOG, 2014, pp. 4-5)

5. Development Impact Fee (DIF) Program

The County of Riverside created its Development Impact Fee (DIF) program to impose and collect fees from new residential, commercial, and industrial development for the purpose of funding local improvements necessary to accommodate growth as identified in the County's General Plan, including

improvements of transportation-related improvements such as traffic signals, roads, bridges, and other major improvements. The identification of specific roadway and intersection improvement projects and the timing to use the DIF fees is established through periodic capital improvement programs which are overseen by County's Transportation Department, as well as other County departments. Facilities eligible for funding through the County's DIF program are identified on the County's *Public Facilities Needs List*, which currently extends through the year 2020. (Urban Crossroads, 2015a, p. 12)

4.15.3 METHODOLOGY FOR ESTIMATING PROJECT-RELATED TRAFFIC IMPACTS

A. Level of Service (LOS)

Traffic operations of roadway facilities are described using the term "Level of Service" (LOS). LOS is a qualitative description of traffic flow based on several factors such as speed, travel time, delay, and freedom to maneuver. Six levels are typically defined ranging from LOS A, representing completely free-flow conditions, to LOS F, representing breakdown in flow resulting in stop-and-go conditions. LOS E represents operations at or near capacity, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow. (Urban Crossroads, 2015a, p. 17) Table 4.15-8, *Signalized Intersections LOS Thresholds*, and Table 4.15-9, *Unsignalized Intersection LOS Thresholds*, summarize typical operational conditions at signalized and unsignalized intersections for each LOS classification, respectively. Table 4.15-10, *Freeway Mainline Segment LOS* Thresholds, summarize the typical freeway mainline operational conditions for each LOS classification.

In 2013, California Senate Bill (SB) 743 was passed, which is intended to balance the need for LOS for traffic planning with the need to build infill housing and mixed use commercial developments within walking distance of mass transit facilities, downtowns, and town centers and to provide greater flexibility to local governments to balance these sometimes competing needs. At full implementation of SB 743, the California Governor's Office of Planning and Research (OPR) is expected to replace LOS as the metric against which traffic impacts are evaluated, with a metric based on vehicle miles traveled (VMT). At the time the NOP for this EIR was released (August 2015), a VMT metric was not adopted by OPR, and the County of Riverside in its capacity as Lead Agency, as well as surrounding local agencies in which the Project's traffic would circulate, use LOS as the significance criteria for evaluating a Project's traffic impacts. For this reason, a LOS metric and not a VMT metric is appropriately used as the significance criterion in this EIR.

Table 4.15-8 Signalized Intersections LOS Thresholds

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Operations with very low delay occurring with favorable progression and/or short cycle length.	0 to 10.00	A	F
Operations with low delay occurring with good progression and/or short cycle lengths.	10.01 to 20.00	B	F
Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.01 to 35.00	C	F
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.	35.01 to 55.00	D	F
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.	55.01 to 80.00	E	F
Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths	80.01 and up	F	F

Source: HCM

Source: (Urban Crossroads, 2015a, Table 2-1)

Table 4.15-9 Unsignalized Intersection LOS Thresholds

Description	Average Control Delay Per Vehicle (Seconds)	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Little or no delays.	0 to 10.00	A	F
Short traffic delays.	10.01 to 15.00	B	F
Average traffic delays.	15.01 to 25.00	C	F
Long traffic delays.	25.01 to 35.00	D	F
Very long traffic delays.	35.01 to 50.00	E	F
Extreme traffic delays with intersection capacity exceeded.	> 50.00	F	F

Source: (Urban Crossroads, 2015a, Table 2-2)

Table 4.15-10 Freeway Mainline Segment LOS Thresholds

Level of Service	Description	Density Range (pc/mi/ln)[1]
A	Free-flow operations in which vehicles are relatively unimpeded in their ability to maneuver within the traffic stream. Effects of incidents are easily absorbed.	0.0 – 11.0
B	Relative free-flow operations in which vehicle maneuvers within the traffic stream are slightly restricted. Effects of minor incidents are easily absorbed.	11.1 – 18.0
C	Travel is still at relative free-flow speeds, but freedom to maneuver within the traffic stream is noticeably restricted. Minor incidents may be absorbed, but local deterioration in service will be substantial. Queues begin to form behind significant blockages.	18.1 – 26.0
D	Speeds begin to decline slightly and flows and densities begin to increase more quickly. Freedom to maneuver is noticeably limited. Minor incidents can be expected to create queuing as the traffic stream has little space to absorb disruptions.	26.1 – 35.0
E	Operation at capacity. Vehicles are closely spaced with little room to maneuver. Any disruption in the traffic stream can establish a disruption wave that propagates throughout the upstream traffic flow. Any incident can be expected to produce a serious disruption in traffic flow and extensive queuing.	35.1 – 45.0
F	Breakdown in vehicle flow.	>45.0

[1] *pc/mi/ln = passenger cars per mile per lane. Source: HCM 2010*

Source: (Urban Crossroads, 2015b, Table 2)

The Riverside County General Plan designates all lands in the County as falling into one of five Foundation Components. The "Community Development" Foundation Component area is the geographic area intended by the County to accommodate the greatest amount of anticipated growth. Based on the LOS standards utilized by the County of Riverside within "Community Development" areas, intersections that operate at LOS E and F are considered deficient. The Project site and areas to the north, east, and south of the Project site are located within a "Community Development" Foundation Component area as defined by the Riverside County General Plan; therefore, all intersection operations of LOS D or better are considered acceptable in these areas. (Urban Crossroads, 2015a, p. 23) The City of Perris has adopted LOS standards stating that intersections within Perris' jurisdiction that operate at LOS E and F are considered deficient along local roads. (City of Perris, 2008, p. 14)

The *Riverside County CMP* defines LOS F as the deficient service level for *CMP* highways and roadways (including intersections). However, as a conservative measure, the analysis presented in this Subsection and *Technical Appendices J1* and *J2* considers LOS E and LOS F to be deficient along *CMP* facilities. (Urban Crossroads, 2015a, p. 24)

Caltrans considers LOS F and LOS E to be deficient operations during the peak hour along the State highway system network under their jurisdiction (Urban Crossroads, 2015a, p. 24).

B. Traffic Trip Counts

As noted previously, to account for the effect large trucks have on circulation and allow for traffic to be represented as a standardized unit, all vehicle trips were converted to PCEs for purpose of conducting the Project's traffic analysis. A PCE factor of 1.5 was applied to 2-axle trucks, 2.0 was applied to 3-axle trucks, and 3.0 was applied for 4+-axle trucks. These factors are consistent with the

values recommended for use in the *San Bernardino County CMP* and are more conservative than the factor recommended by County of Riverside's traffic study guidelines (which applies a factor of 2.0 to all large vehicles regardless of the number of axles). The *San Bernardino County CMP* PCE factors are utilized for the Project's analysis in an effort to conduct a more conservative analysis. (Urban Crossroads, 2015a, p. 37)

A detailed description of the methodology used to classify peak hour and daily traffic trips is provided in *Technical Appendix J1*.

C. *Intersection Capacity Analysis*

The intersection LOS analysis is based on the traffic volumes observed/projected during peak hour conditions. The following peak hours were selected for analysis because these hours typically experience the most traffic during a 24-hour period.

- Weekday AM Peak Hour (between 7:00 AM and 9:00 AM)
- Weekday PM Peak Hour (between 4:00PM and 6:00PM)

For signalized intersections, the County of Riverside requires operations analysis based on the methodology described in the *Highway Capacity Manual (HCM)*. Study area intersections were evaluated using the Synchro (Version 8 Build 806) analysis software package. Intersection LOS operations are based on an intersection's average control delay for each vehicle movement. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. At signalized intersections LOS is directly related to the average control delay per vehicle and is correlated to a LOS designation as described in Table 4.15-8. (Urban Crossroads, 2015a, p. 17)

Per the Caltrans *Guide for the Preparation of Traffic Impact Studies*, the traffic modeling and signal timing optimization software package Synchro (Version 8 Build 806) has also been utilized to analyze signalized intersections under Caltrans' jurisdiction, which include the I-215 interchange at Harley Knox Boulevard. Signal timing for the freeway arterial-to-ramp intersections were obtained from Caltrans District 8. (Urban Crossroads, 2015a, p. 18)

For unsignalized intersections, the County of Riverside requires that operations be evaluated using the methodology described in the *HCM*. At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. For all-way stop controlled intersections, LOS is computed for the intersection as a whole. (Urban Crossroads, 2015a, p. 19) The LOS rating is based on the weighted average control delay expressed in seconds per vehicle, as shown in Table 4.15-9.

For a more detailed discussion on intersection capacity analysis methodology, refer to Subsection 2.2 of *Technical Appendix J1*.

D. *Traffic Signal Warrant Analysis*

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. The signal warrant criteria presented in the latest edition of the Federal Highway Administration's (FHWA) *Manual on Uniform Traffic Control Devices (MUTCD),* as amended by the *MUTCD 2014 California Supplement* is used for all unsignalized study area intersections. For more information on signal warrant analysis methodology, refer to Subsection 2.4 of *Technical Appendix J1*. (Urban Crossroads, 2015a, p. 20)

Traffic signal warrant analyses were performed for all unsignalized Project study area intersections (seven total intersections), as shown in Table 4.15-11, *Traffic Signal Warrant Analysis Locations*. 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 intersection 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. (Urban Crossroads, 2015a, p. 21)

Table 4.15-11 Traffic Signal Warrant Analysis Locations

ID	Intersection Location	Jurisdiction	CMP?
1	Driveway 1 / Oleander Avenue – Future Intersection	County of Riverside	No
2	Driveway 2 / Oleander Avenue – Future Intersection	County of Riverside	No
3	Driveway 3 / Oleander Avenue – Future Intersection	County of Riverside	No
4	Decker Road / Oleander Avenue – Future Intersection	County of Riverside	No
5	Driveway 4 / Oleander Avenue – Future Intersection	County of Riverside	No
6	Driveway 5 / Oleander Avenue – Future Intersection	County of Riverside	No
7	Driveway 6 / Oleander Avenue – Future Intersection	County of Riverside	No

Source: (Urban Crossroads, 2015a, Table 2-3)

E. *Freeway Mainline Segment Analysis*

For purposes of analysis, the freeway system in the study area has been broken into segments defined by the freeway-to-arterial interchange locations. The freeway mainline segment analysis is based upon peak hour directional volumes, and the freeway mainline segment performance analysis utilizes the methodology described in the *HCM* and was performed using HCS2010 software. The performance measure preferred by Caltrans to calculate LOS is density. Density is expressed in terms of passenger cars per mile per lane. Table 4.15-10 summarizes the freeway segment LOS thresholds for each density range utilized for this analysis. (Urban Crossroads, 2015a, p. 21)

For a more detailed discussion of freeway mainline segment analysis methodology, refer to Subsection 2.5 of *Technical Appendix J1*.

F. Freeway Ramp Merge/Diverge Ramp Junction Analysis

The merge/diverge analysis is based on the *HCM* "Ramps and Ramp Junctions" analysis method and was performed using HCS+ software. Although the *HCM* indicates the influence area for a merge/diverge junction is 1,500 feet, the analysis presented the Project's analysis was performed at all ramp locations with respect to the nearest on- or off-ramp at each interchange in an effort to be consistent with Caltrans guidance/comments on other projects in the region. The results (reported in passenger car per mile per lane) are calculated based on the existing number of travel lanes, number of lanes at the on- and off-ramp both at the analysis junction and at upstream and downstream locations (if applicable) and acceleration/deceleration lengths at each merge/diverge point. Table 4.15-12, *Description of Freeway Merge and Diverge LOS*, summarizes the freeway ramp merge/diverge junction LOS thresholds utilized in this analysis. (Urban Crossroads, 2015a, pp. 22-23)

Table 4.15-12 Description of Freeway Merge and Diverge LOS

Level of Service	Density Range (pc/mi/ln)[1]
A	≤10.0
B	10.0 – 20.0
C	20.0 – 28.0
D	28.0 – 35.0
E	>35.0
F	Demand Exceeds Capacity

[1] pc/mi/ln = passenger cars per mile per lane. Source: HCM
Source: (Urban Crossroads, 2015a, Table 2-5)

For more information on freeway ramp merge/diverge junction analysis methodology, refer to Subsection 2.6 of *Technical Appendix J1*.

G. Freeway Off-Ramp Queuing Analysis

The traffic progression analysis tool and HCM intersection analysis program, Synchro, was used to assess the potential impacts/needs of the freeway ramps with traffic added from the proposed Project. Storage (turn-pocket) length recommendations at the ramps are based upon the 95th percentile queue resulting from the Synchro progression analysis. The 95th percentile queue is the maximum back of queue with 95th percentile traffic volumes. The queue length reported is for the lane with the highest queue in the lane group. (Urban Crossroads, 2015a, pp. 19-20)

For more information on the freeway ramp queuing analysis methodology, refer to Subsection 2.3 of *Technical Appendix J1*.

H. Cumulative Impact Analysis

CEQA Guidelines § 15130 requires that an EIR disclose the impact from the Project along with the incremental impacts from closely related past, present, and reasonable foreseeable future projects (i.e., cumulative impact analysis). As previously described in EIR Subsection 4.0, *Environmental Analysis*,

the analysis of the Project's potential cumulative traffic impacts utilizes a summary of projections approach plus a list of projects approach in order to provide a conservative, worst-case analysis. Data for the summary of projections approach was obtained from the sources previously described in EIR Subsection 4.0. Data of the list of projects approach was obtained from a list of 103 cumulative projects identified in consultation with planning and engineering staff from the County of Riverside, City of Moreno Valley, March Joint Powers Authority, City of Riverside, and City of Perris. The 103 cumulative projects were identified based on their records or past, pending, and foreseeable future projects in Riverside County and surrounding jurisdictions. For purposes of analysis in *Technical Appendices J1* and *J2* and this Subsection, the cumulative Projects were grouped into 79 traffic analysis zones based on their geographic location. The list of these 103 projects is included in EIR Subsection 4.0, *Environmental Analysis*. Descriptive and locational information about each project considered in the cumulative impact analysis can be sound in Subsection 4.6 of *Technical Appendix J1*. (Urban Crossroads, 2015a, pp. 56-62)

I. Future Year Background Traffic

1. Opening Year (2017) Background Traffic

Opening Year (2017) background traffic forecasts are based upon a background – or ambient – growth rate of two percent (2%) per year, compounded annually. Accordingly, the total ambient growth rate utilized for the Project's Opening Year (2017) is 4.04%. Using the ambient growth rate, two analyses known as the buildup and buildout methods were used to evaluate Opening Year (2017) traffic. The buildup method was used to approximate traffic forecasts for the Project's Opening Year (2017), and was intended to identify the significant impacts on both the existing and planned near-term circulation system. The buildup method was also utilized to approximate the Opening Year (2017) traffic forecasts with cumulative development included, to identify the cumulative impacts on both the existing and planned near-term circulation system. (Urban Crossroads, 2015a, p. 62)

For more information on the derivation of opening year background traffic forecasts, refer to Subsection 4.7 of *Technical Appendix J1*.

2. Horizon Year (2035) Background Traffic

For purposes of the analysis in *Technical Appendix J1* and this Subsection, the Horizon Year (2035) background traffic conditions were derived from the Riverside County Transportation Analysis Model (RivTAM). The RivTAM traffic forecasts reflect the area-wide growth anticipated between existing conditions and long-term conditions. To provide a more detailed Horizon Year (2035) traffic impact analysis for the Project as presented in *Technical Appendices J1* and *J2* and this EIR Subsection, Urban Crossroads supplemented and modified the RivTAM model using industry-accepted procedures for model forecast refinement and smoothing rather than rely on RivTAM model defaults. (Urban Crossroads, 2015a, pp. 63-64) This methodology would be conservative and would overstate – as opposed to understate – the Project's potential long-term impacts to traffic and circulation.

Refer to Subsection 4.8 of *Technical Appendix J1* for a detailed description of the refinements made to the RivTAM model for purposes of the Project's traffic impact analysis.

J. Future Year Roadway Conditions

1. Opening Year (2017) Roadway Conditions

The Project's traffic analyses anticipate that the traffic facilities listed below will be in place for the Project's Opening Year (2017), in addition to the lane configurations and traffic controls in place under existing conditions (Urban Crossroads, 2015a, p. 85):

- Project driveways and those facilities assumed to be constructed by the Project to provide access to the Project site; and
- Driveways and those facilities assumed to be constructed by nearby cumulative development projects to provide site access.

The traffic analysis also assumes that several freeway mainline improvements that are currently in various stages of planning, design, and construction will be completed by the Project's Opening Year (2017). The planned enhancements to the regional freeway system in the Project vicinity that are assumed to be in place by the Project's Opening Year are summarized below (Urban Crossroads, 2015b, pp. 6-7). It is reasonable to anticipate that these facilities will be in place under Opening Year conditions because these improvements are funded and were under construction at the time *Technical Appendix J2* was prepared.

- I-215: The I-215/Cactus Avenue and Van Buren Boulevard interchange will be improved to extend the northbound auxiliary lane between Alessandro Boulevard and Cactus Avenue (expected to be completed by 2018); and
- SR-91: One carpool lane in each direction between Adams Street and the SR-60/SR-91/I-215 freeway interchange (complete, but was under construction at the time *Technical Appendix J2* was prepared).

Refer to *Technical Appendix J2* for additional information on planned freeway improvements.

2. Horizon Year (2035) Roadway Conditions

The Project's traffic analyses anticipate that the traffic facilities listed below will be in place under Horizon Year (2035) conditions, in addition to the lane configurations and traffic controls in place under existing conditions and Opening Year (2017) conditions (Urban Crossroads, 2015a, p. 97). It is reasonable to anticipate that these facilities will be in place under Horizon Year (2035) conditions because these improvements are planned capital improvements that have funding programs in place for their eventual construction.

- Project driveways and those facilities assumed to be constructed by the Project to provide access to the Project site;

- Driveways and those facilities assumed to be constructed by nearby cumulative development projects to provide site access;
- The extension of Decker Road to the north of Oleander Avenue; and
- Other parallel facilities that are anticipated to be in place and would affect the travel patterns within the study area (e.g., Nandina Avenue, Markham Street, Day Street, etc.).

The traffic analysis also assumes that several freeway mainline improvements that are currently in various stages of planning, design, and construction will be completed by the Horizon Year (2035) scenario. The planned enhancements to the regional freeway system in the Project vicinity that are assumed to be in place by Year 2035 or later are summarized below (Urban Crossroads, 2015b, pp. 6-7). It is reasonable to anticipate that these facilities will be in place under Horizon Year (2035) conditions because these improvements are planned capital improvements of Caltrans.

- I-215: An approximately 10.75-mile segment of I-215, between Nuevo Road in the City of Perris and Box Springs Road in the City of Riverside, will be widened to add one carpool lane (high-occupancy vehicle lane) in each direction; however, a completion date for the I-215 expansion project has not been set due to budget constraints. Once the I-215 expansion costs and funding are determined, the planning, design and construction process is estimated to last approximately 8.5 years.

Refer to *Technical Appendix J2* for additional information on planned freeway improvements.

K. Fair-Share Calculation

In instances where the Project is projected to contribute to a cumulatively considerable impact to a roadway facility, and the recommended mitigation measure is a "fair-share" monetary contribution toward the construction of roadway improvements needed to correct the circulation deficiency, the Project's fair-share contribution is determined by the following equation. (Urban Crossroads, 2015a, p. 25):

Project Fair Share % = Project Traffic / (2035 Total Traffic – Existing Traffic)

This calculation is reasonable mitigation under CEQA because it establishes a proportional nexus between the Project's impact and the recommended mitigation. Refer to Subsection 2.9 of *Technical Appendix J1* for more information on the methodology used to calculate the Project's fair share contribution toward future roadway improvements.

4.15.4 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to the transportation/traffic system if the Project or any Project-related component that would:

a. Conflict with an applicable plan, ordinance or policy establishing a measure of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;

b. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways;

c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;

d. Alter waterborne, rail or air traffic;

e. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment);

f. Cause an effect upon, or a need for new or altered maintenance of roads;

g. Cause an effect upon circulation during the project's construction;

h. Result in inadequate emergency access or access to nearby uses; or

i. Conflict with adopted policies, plans or programs regarding public transit, bikeways or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities?

A. Determining Significance of Impacts

1. Intersections

For purposes of determining the significance of traffic impacts in this subsection, a significant direct traffic impact would occur when the addition of Project traffic under Existing plus Project (E+P) and/or Existing plus Ambient Growth plus Project (E+A+P) traffic conditions causes an intersection that operates at LOS D or better to fall to LOS E or F. (Urban Crossroads, 2015a, pp. 23-24, 38)

Cumulative traffic impacts are deficiencies that are not directly caused by the Project, but occur as a result of regional growth combined with other nearby cumulative development projects. The Project's contribution of traffic to a particular cumulative transportation deficiency is deemed cumulatively considerable if the Project adds substantial traffic to the forecasted deficiency under the Existing plus Project plus Cumulative (E+A+P+C) and/or Horizon Year (2035) traffic scenarios (Urban Crossroads, 2015a, p. 8). A Project's contribution to a cumulative impact can be reduced to less than significant if the Project is required to implemented or fund its fair share of physical improvements designed to alleviate the potential cumulative impact. If full funding of future physical improvements is not reasonably assured, a short-term unmitigated cumulative impact may occur until the needed improvement is fully funded and constructed, despite the identification of the needed improvements and payment of a project's contribution to the potential deficiency.

2. *Freeway Mainline Segments and Ramp Junctions*

For purposes of the analysis in this EIR Subsection, if a freeway mainline segment or ramp junction is projected to operate at LOS D or better without the Project and the Project would contribute traffic that is expected to cause the facility to operate at LOS E or LOS F under E+P and/or E+A+P traffic conditions, then the Project's impact is considered direct and significant. If the facility would operate at a deficient LOS under any traffic analysis scenario without the Project and the Project would contribute traffic to the deficiency, the Project's impact would be cumulatively considerable. (Urban Crossroads, 2015a, p. 25)

3. *Freeway Off-Ramp Queuing*

To determine whether the addition of Project traffic at a freeway ramp results in a significant impact, the stacking distance is measured to determine if the addition of Project traffic would result in a deficiency. Stacking distance on freeway ramps is acceptable if the required 95th percentile stacking distance is less than or equal to the stacking distance provided. Therefore, a significant impact would occur if the 95th percentile stacking distance need was greater than the available stacking distance. (Urban Crossroads, 2015a, p. 19) The impact would be considered a significant direct impact of the Project if the Project's traffic causes the queue to exceed the 95th percentile under E+P and/or E+A+P traffic conditions. The impact would be considered cumulatively considerable if the Project's traffic would contribute to queues that exceed the 95th percentile under E+A+P+C and/or Horizon Year traffic conditions.

4.15.5 IMPACT ANALYSIS

The roadway improvements proposed by the Project are described in EIR Section 3.0, *Project Description*, the construction of which would be ensured as part of the Project's conditions of approval issued by the County of Riverside in association with the Project's approval process. The construction of the proposed roadway improvements, including driveway connections, is assumed throughout the analysis presented in *Technical Appendices J1* and *J2*, and summarized in this subsection.

Threshold a)	***Would the Project conflict with an applicable plan, ordinance or policy establishing a measure of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?***

The analysis of Threshold (a) focuses on potential impacts to the local circulation network (i.e., roadways and intersections). Refer to Threshold (b) for an analysis of potential impacts to the *Riverside County CMP* roadway network, including potential impacts to freeway facilities in the Project study area.

1. Project Vehicle Trip Generation

Vehicle trip generation represents the amount of traffic that is both attracted to and produced by a development project. Determining traffic generation for a specific project is based upon forecasting the amount of traffic that is expected to be both attracted to and produced by the specific land uses being proposed by that given project. The vehicle trip generation rates utilized to estimate the amount of traffic that would be generated by the proposed Project are based on data collected by Institute of Transportation Engineers (ITE) and presented in their most recent edition of the *Trip Generation* manual (9th Edition, 2012).

Due to the size and proposed use of Buildings D and E, both buildings are evaluated as high cube warehouses (ITE Land Use Code 152), which has a weighted average daily trip generation rate of 1.68 trips per one thousand square feet (refer to Table 4.15-13, *Project Trip Generation Rates*). The Project's vehicle mix (i.e., percentage of passenger car trips vs. truck trips) is based on values contained in the ITE's *Trip Generation* manual. For truck trips, the ITE's *Trip Generation* manual provides no guidance on truck fleet mix (i.e., percentage of 2-axle, 3-axle, and 4-axle trips); therefore, data regarding truck vehicle mix is based on recommendations provided the by the South Coast Air Quality Management District (SCAQMD). The SCAQMD recommends the use of a specific truck mix by axle-type to better quantify trip rates associated with local warehouse and distribution projects. Based on the data from the ITE and the recommendations of the SCAQMD, the proposed Project as evaluated herein is calculated to generate 2,115 actual vehicle trips per day, of which 138 would occur during the AM peak hour and 151 would occur during the PM peak hour (refer to Table 4.15-14, *Project Trip Generation (Actual Vehicles)*). Of the Project's actual vehicle trips per day, passenger cars would comprise 1,309 trips and trucks would comprise 806 trips. (Urban Crossroads, 2015a, pp. 47-52)

Table 4.15-15, *Project Trip Generation (PCE),* summarizes the number of trips and vehicle mix for the land use proposed by the Project, with PCE factors applied. After converting to PCE, the Project is estimated to generate 3,319 daily PCE trips, including 195 PCE trips during the AM peak hour and 226 PCE trips during the PM peak hour. The converted trip rates and vehicle mix presented in Table 4.15-15 are utilized throughout the analysis in *Technical Appendices J1* and *J2* and this EIR Subsectionto determine the Project's effect to the transportation and circulation network. (Urban Crossroads, 2015a, pp. 47-52)

As mentioned in the introduction to this subsection, the calculations presented herein are based on a larger sized Building E than is currently proposed. A Supplemental Analysis prepared for the currently proposed smaller Building E is provided in the front of *Technical Appendix J1* and shows that the proposed Project (Building D and Building E) is calculated to generate a net total of approximately 2,936 passenger car equivalent (PCE) based trip-ends per day (intead of the 3,319 daily PCE trips evaluated herein) with 172 PCE AM peak hour trips and 200 PCE PM peak hour trips. This accounts for 382 fewer PCE trip-ends per day with 23 fewer PCE AM peak hour trips and 25 fewer PCE PM trips than analyzed herein. Because the anlaysis in Technical Appendices J1 and J2 overstate the Project's impacts, the County did not find it necessary to update the reports to show a lesser Project

Table 4.15-13 Project Trip Generation Rates

Land Use[1]	Units[2]	ITE LU Code	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Actual Vehicle Trip Generation Rates									
High-Cube Warehouse/Distribution Center[3]	TSF	152	0.076	0.034	0.110	0.037	0.083	0.120	1.680
Passenger Cars			0.055	0.025	0.080	0.025	0.055	0.080	1.040
2-Axle Trucks			0.005	0.002	0.007	0.003	0.006	0.009	0.141
3-Axle Trucks			0.004	0.002	0.005	0.002	0.005	0.007	0.113
4-Axle+ Trucks			0.012	0.006	0.018	0.007	0.017	0.024	0.386
Passenger Car Equivalent (PCE) Trip Generation Rates									
High-Cube Warehouse/Distribution Center[3,4]	TSF	152	0.076	0.034	0.110	0.037	0.083	0.120	1.680
Passenger Cars			0.055	0.025	0.080	0.025	0.055	0.080	1.040
2-Axle Trucks (PCE = 1.5)			0.007	0.003	0.010	0.004	0.009	0.013	0.211
3-Axle Trucks (PCE = 2.0)			0.007	0.003	0.011	0.004	0.010	0.014	0.226
4-Axle+ Trucks (PCE = 3.0)			0.037	0.017	0.054	0.022	0.050	0.072	1.158

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Ninth Edition (2012).

[2] TSF = thousand square feet

[3] Vehicle Mix Source: Total truck percentage source from ITE Trip Generation manual. Truck mix (by axle type) source from SCAQMD.
AM peak hour = 72.7% passenger cars, 6.01% 2-Axle trucks, 4.83% 3-Axle trucks, 16.46% 4-Axle trucks
PM peak hour = 66.7% passenger cars, 7.33% 2-Axle trucks, 5.89% 3-Axle trucks, 20.08% 4-Axle trucks
ADT = 61.9% passenger cars, 8.38% 2-Axle trucks, 6.74% 3-Axle trucks, 22.98% 4-Axle trucks

[4] PCE rates are per SANBAG.

Source: (Urban Crossroads, 2015a, Table 4-1)

Table 4.15-14 Project Trip Generation (Actual Vehicles)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Building D	703.040	TSF							
Passenger Cars:			39	17	56	17	39	56	731
Truck Trips:									
2-axle:			*3*	*1*	*4*	*2*	*4*	*6*	*99*
3-axle:			*3*	*1*	*4*	*2*	*3*	*5*	*80*
4+-axle:			*9*	*4*	*13*	*5*	*12*	*17*	*271*
- Net Truck Trips (Actual Trucks)[2]			*15*	*6*	*21*	*9*	*19*	*28*	*450*
BUILDING D TOTAL NET TRIPS (Actual Vehicles)[3]			***53***	***23***	***76***	***26***	***58***	***84***	***1,181***
Building E	556.010	TSF							
Passenger Cars:			31	14	45	14	31	45	578
Truck Trips:									
2-axle:			*3*	*1*	*4*	*2*	*3*	*5*	*78*
3-axle:			*2*	*1*	*3*	*1*	*3*	*4*	*63*
4+-axle:			*7*	*3*	*10*	*4*	*9*	*13*	*215*
- Net Truck Trips (Actual Trucks)[2]			*12*	*5*	*17*	*7*	*15*	*22*	*356*
BUILDING E TOTAL NET TRIPS (Actual Vehicles)[3]			***43***	***19***	***62***	***21***	***46***	***67***	***934***
TOTAL (ACTUAL):			**96**	**42**	**138**	**47**	**104**	**151**	**2,115**

[1] TSF = thousand square feet

[2] Vehicle Mix Source: Total truck percentage source from ITE Trip Generation manual. Truck mix (by axle type) source from SCAQMD.

[3] TOTAL NET TRIPS (Actual Vehicles) = Passenger Cars + Net Truck Trips (Actual Trucks).

Source: (Urban Crossroads, 2015a, Table 4-3)

Note: The numerical values shown in Table 4.15-14 were calculated prior to the Project Applicant's decision to reduce the size of the Building E Site and the size of its proposed building to the current configurations described in EIR Section 3.0, *Project Description*. Therefore, Urban Crossroads, Inc. prepared a supplemental analysis to address the reduction in size of the Building E Site and its proposed building. The update letter, "Knox Business Park Supplemental Analysis," is appended to the front of *Technical Appendix J1*. (Urban Crossroads, Inc., 2017a).

Table 4.15-15 Project Trip Generation (PCE)

Land Use	Quantity	Units[1]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Building D	703.040	TSF							
Passenger Cars:			39	17	56	17	39	56	731
Truck Trips:									
2-axle:			*5*	*2*	*7*	*3*	*6*	*9*	*148*
3-axle:			*5*	*2*	*7*	*3*	*7*	*10*	*159*
4+-axle:			*26*	*12*	*38*	*16*	*35*	*51*	*814*
- Net Truck Trips (PCE) [2]			*36*	*16*	*52*	*22*	*48*	*70*	*1,122*
BUILDING D TOTAL NET TRIPS (PCE) [3]			***75***	***34***	***108***	***39***	***87***	***126***	***1,853***
Building E	556.010	TSF							
Passenger Cars:			31	14	45	14	31	45	578
Truck Trips:									
2-axle:			*4*	*2*	*6*	*2*	*5*	*7*	*117*
3-axle:			*4*	*2*	*6*	*2*	*5*	*7*	*126*
4+-axle:			*21*	*9*	*30*	*12*	*28*	*40*	*644*
- Net Truck Trips (PCE) [2]			*29*	*13*	*42*	*17*	*38*	*55*	*887*
BUILDING E TOTAL NET TRIPS (PCE) [3]			***59***	***27***	***87***	***31***	***69***	***99***	***1,466***
TOTAL (PCE):			**135**	**60**	**195**	**70**	**156**	**225**	**3,319**

[1] TSF = thousand square feet

[2] Vehicle Mix Source: Total truck percentage source from ITE Trip Generation manual. Truck mix (by axle type) source from SCAQMD.

[3] TOTAL NET TRIPS (PCE) = Passenger Cars + Net Truck Trips (PCE).

Source: (Urban Crossroads, 2015a, Table 4-2)

Note: The numerical values shown in Table 4.15-15 were calculated prior to the Project Applicant's decision to reduce the size of the Building E Site and the size of its proposed building to the current configurations described in EIR Section 3.0, *Project Description*. Therefore, Urban Crossroads, Inc. prepared a supplemental analysis to address the reduction in size of the Building E Site and its proposed building. The update letter, "Knox Business Park Supplemental Analysis," is appended to the front of *Technical Appendix J1*. (Urban Crossroads, Inc., 2017a).

impact. Thus, all Project impacts disclosed herein overstate the actual expected impact. (Urban Crossroads, Inc., 2017c)

For more information on the trip generation methodology, refer to Subsection 4.1 of *Technical Appendix J1*.

2. Project Vehicle Trip Distribution

Trip distribution is the process of identifying the probable destinations, directions, or traffic routes that will be utilized by Project traffic. The potential interaction between the planned land uses and surrounding regional access routes are considered, to identify the route where the Project's traffic would distribute. The trip distribution pattern of passenger cars is heavily influenced by the geographical location of the Project site, the location of surrounding uses, and the proximity to the regional freeway system. The trip distribution patterns for truck traffic are strongly influenced by the location of designated local truck routes.

The near- and long-term traffic distribution pattern for Project-related passenger and truck trips is graphically depicted on Figure 4.15-8, *Project Passenger Cars Trip Distribution*, and Figure 4.15-9, *Project Trucks Trip Distribution*, respectively. Based on the identified Project traffic generation and trip distribution patterns, Project ADT along Project study area roadways and peak hour intersections turning movement volumes are shown on Figure 4.15-10, *Project Traffic Volumes*.

3. Analysis Scenarios

Potential impacts to the transportation and circulation network are assessed for each of the scenarios listed below.

- Short-Term Construction Conditions
- Existing plus Project Conditions
- Opening Year (2017) Conditions
- Opening Year (2017) plus Cumulative Conditions
- Horizon Year (2035) Conditions

The Short-Term Construction Conditions analysis determines the potential for Project construction-related traffic or construction-related activities (i.e., construction activities within the public right-of-way) to result in an adverse effect to the local roadway system, based on existing (2015) conditions. Types of traffic anticipated during construction include, but is not limited to employees traveling to/from the Project site as well as deliveries of construction materials to the Project site.

Information for existing conditions is disclosed in Subsection 4.15.2, above, and represents the baseline traffic conditions and they existed in 2015 when the NOP for the EIR was circulated for public review. The Existing plus Project (E+P) analysis determines traffic impacts that would occur of the existing roadway system with the addition of Project traffic in the theoretical scenario of the Project being

placed upon existing conditions. The E+P scenario is presented to disclose direct impacts as required by CEQA. In the case of the proposed Project, the estimated time period between the distribution of the NOP for the Project's EIR (2015) and estimated Project occupancy (2017) is two years. During this time period, traffic conditions are not static – other projects are being constructed, the transportation network is evolving, and traffic patterns are changing. Therefore, the E+P scenario is very unlikely to materialize in real world conditions and thus does not accurately describe the environment that will exist when the proposed Project is constructed and becomes operational. Regardless, the E+P scenario is evaluated to satisfy CEQA requirements to identify the Project's impacts to the existing environment.

The Opening Year (2017) analysis includes an evaluation the Existing plus Ambient Growth plus Project (E+A+P) traffic conditions. The E+A+P analysis is intended to identify the direct impacts associated solely with the development of the proposed Project based on the expected background growth within the study area. The Opening Year (2017) analysis also includes an evaluation of Existing plus Ambient Growth plus Project plus Cumulative Development (E+A+P+C) conditions to identify the Project's potential cumulative contribution to traffic impacts within the study area.

The Horizon Year (2035) conditions analysis is utilized to determine if planned local and regional transportation improvements, which are funded through local and regional transportation mitigation fee programs such as the TUMF program, County of Riverside DIF program, or other approved funding mechanism (Community Facilities District, etc.), can accommodate expected long-term growth and development at the applicable target LOS identified in the Riverside County General Plan. If the "funded" improvements can provide the target LOS, then the Project's payment into the TUMF and DIF is considered adequate cumulative mitigation as imposed through Conditions of Approval applied to the Project by the County of Riverside. If they are not, then those impacts are deemed potentially significant. Regardless, fair share fees would apply for a project's impact to those intersections.

A. Short-Term Construction Traffic Impact Analysis

During the Project's construction phase, traffic to-and-from the subject property would be generated by activities such as construction employee trips, delivery of construction materials, and use of heavy equipment. During peak construction periods, which are expected to occur during building construction, vehicular traffic associated with construction employees is estimated at approximately 500 two-way trips per day, assuming Building D and Building E are under simultaneous construction. Peak daily construction traffic volumes would be less than daily and peak hour traffic volumes generated by the Project operational activities at study area intersections. Based on the anticipated construction schedule, most construction workers would arrive to and depart from the Project site outside of the AM/PM peak hours and, therefore, would not be driving to/from the subject property during hours of peak congestion. Deliveries of construction materials to the Project site also would have a nominal effect to the local roadway network. Construction materials would be delivered to the site throughout the construction phase based on need and would not occur on an everyday basis. Heavy equipment would be utilized on the Project site during the construction phase. Because most heavy equipment is not authorized to be driven on a public roadway, most equipment would be delivered and

removed from the site via flatbed trucks. As with the delivery of construction materials, the delivery of heavy equipment to the Project site would not occur on a daily basis, but would occur periodically throughout the construction phase based on need.

As shown in Table 4.15-4, all five existing intersections in the Project's study area operate at an acceptable LOS under existing (2015) conditions. Based on the information described above, the addition of temporary, Project-related construction traffic to these transportation facilities is not calculated to degrade LOS to a deficient level. Accordingly, traffic generated by the Project's construction phase would not result in or contribute to a conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system. Impacts during the Project's construction phase would be less than significant.

Although the Project would result in a less-than-significant effect to the local circulation system during short-term construction activities, the Project would be required to implement temporary traffic controls in compliance with the California Manual on Uniform Traffic Control Devices, which specify that such traffic controls shall be provided during construction, such as a flag person, during all phases of construction to facilitate the flow of construction traffic on streets abutting the Project site. Compliance would ensure that the Project's construction-related traffic does not result in substantial adverse effects to the local circulation network.

B. *Existing plus Project (E+P) Traffic Impact Analysis*

Projected ADT volumes and AM and PM peak hour turning movement volumes for E+P traffic conditions are illustrated on Figure 4.15-11, *Existing plus Project (E+P) Traffic Volumes*.

1. *Intersection Operations Analysis*

Table 4.15-16, *Existing plus Project (E+P) Intersection Analysis*, summarizes the peak hour LOS at Project study area intersections under E+P conditions. As shown in Table 4.15-16, all intersections in the Project study area would operate at acceptable LOS under E+P traffic conditions (Urban Crossroads, 2015a, p. 65). As such, the Project would result in a less-than-significant impact to study area intersections under E+P traffic conditions.

2. *Traffic Signal Warrant Analysis*

Under E+P traffic conditions, no unsignalized intersections within the Project study area warrant consideration of a traffic signal (Urban Crossroads, 2015a, p. 65). Accordingly, the Project would not cause operations at any unsignalized intersection in the Project study area to degrade to the point that a traffic signal is required to provide adequate, stable traffic flow. The Project's impact would be less than significant.

C. *Opening Year (2017) Traffic Impact Analysis (E+A+P)*

Projected weekday ADT volumes and peak hour intersection volumes for E+A+P traffic conditions are shown on Figure 4.15-12, *Opening Year (2017) Traffic Volumes (E+A+P)*.

Table 4.15-16 Existing plus Project (E+P) Intersection Analysis

#	Intersection	Traffic Control[2]	Existing (2015) Delay[1] (secs.) AM	Existing (2015) Delay[1] (secs.) PM	Existing (2015) Level of Service AM	Existing (2015) Level of Service PM	Existing Plus Project Delay[1] (secs.) AM	Existing Plus Project Delay[1] (secs.) PM	Existing Plus Project Level of Service AM	Existing Plus Project Level of Service PM	Acceptable LOS
1	Dwy. 1 / Oleander Av.	CSS	Future Intersection				0.0	0.0	A	A	C
2	Dwy. 2 / Oleander Av.	CSS	Future Intersection				8.4	8.5	A	A	C
3	Dwy. 3 / Oleander Av.	CSS	Future Intersection				8.4	8.6	A	A	C
4	Decker Rd. / Oleander Av.	CSS	Future Intersection				8.5	8.7	A	A	D
5	Dwy. 4 / Oleander Av.	CSS	Future Intersection				8.5	8.8	A	A	C
6	Dwy. 5 / Oleander Av.	CSS	Future Intersection				8.5	8.9	A	A	C
7	Dwy. 6 / Oleander Av.	CSS	8.9	0.0	A	A	10.2	9.5	B	A	C
8	Harvill Av. / Harley Knox Bl.	TS	32.8	32.2	C	C	33.5	34.8	C	C	D
9	Harvill Av. / Oleander Av.	TS	6.5	4.6	A	A	13.8	14.3	B	B	D
10	I-215 SB Ramps / Harley Knox Bl.	TS	37.0	26.8	D	C	37.1	28.4	D	C	D
11	I-215 NB Ramps / Harley Knox Bl.	TS	13.6	22.2	B	C	15.0	28.9	B	C	D

[1] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] CSS = Cross-street Stop; TS = Traffic Signal; CSS = Improvement

Source: (Urban Crossroads, 2015a, Table 5-1)

1. Intersection Operations Analysis

Table 4.15-17, *Opening Year (2017) Intersection Analysis (E+A+P)*, summarizes the LOS at study area intersections during the AM and PM peak hours under E+A+P traffic conditions. As shown in Table 4.15-17, all intersections in the Project study area would operate at acceptable LOS under E+A+P traffic conditions (Urban Crossroads, 2015a, p. 75). Accordingly, the Project would result in a less-than-significant impact to study area intersections under E+A+P traffic conditions.

2. Traffic Signal Warrant Analysis

Under E+A+P traffic conditions, no unsignalized intersections within the Project study area warrant consideration of a traffic signal (Urban Crossroads, 2015a, p. 75). Accordingly, the Project would not cause operations at any unsignalized intersection in the Project study area to degrade to the point that a traffic signal is required to provide adequate, stable traffic flow. The Project's impact would be less than significant under E+A+P conditions.

D. Opening Year (2017) plus Cumulative Traffic Impact Analysis (E+A+P+C)

Projected weekday ADT volumes and peak hour intersection volumes for E+A+P+C conditions are shown on Figure 4.15-13, *Opening Year (2017) plus Cumulative Traffic Volumes (E+A+P+C).*

1. Intersection Operations Analysis

Table 4.15-18, *Opening Year (2017) plus Cumulative Intersection Analysis (E+A+P+C)*, summarizes the LOS at study area intersections during the AM and PM peak hours under E+A+P+C traffic conditions. As shown in Table 4.15-18, all Project study area intersections are anticipated to operate

Table 4.15-17 Opening Year (2017) Intersection Analysis (E+A+P)

#	Intersection	Traffic Control[2]	Existing (2015) Delay[1] (secs.) AM	Existing (2015) Delay[1] (secs.) PM	Existing (2015) Level of Service AM	Existing (2015) Level of Service PM	EAP (2017) Delay[1] (secs.) AM	EAP (2017) Delay[1] (secs.) PM	EAP (2017) Level of Service AM	EAP (2017) Level of Service PM	Acceptable LOS
1	Dwy. 1 / Oleander Av.	CSS	Future Intersection				0.0	0.0	A	A	C
2	Dwy. 2 / Oleander Av.	CSS	Future Intersection				8.4	8.5	A	A	C
3	Dwy. 3 / Oleander Av.	CSS	Future Intersection				8.4	8.6	A	A	C
4	Decker Rd. / Oleander Av.	CSS	Future Intersection				8.5	8.7	A	A	D
5	Dwy. 4 / Oleander Av.	CSS	Future Intersection				8.5	8.8	A	A	C
6	Dwy. 5 / Oleander Av.	CSS	Future Intersection				8.5	8.9	A	A	C
7	Dwy. 6 / Oleander Av.	CSS	8.9	0.0	A	A	10.2	9.5	B	A	C
8	Harvill Av. / Harley Knox Bl.	TS	32.8	32.2	C	C	33.2	35.0	C	D	D
9	Harvill Av. / Oleander Av.	TS	6.5	4.6	A	A	13.8	14.2	B	B	D
10	I-215 SB Ramps / Harley Knox Bl.	TS	37.0	26.8	D	C	37.5	31.3	D	C	D
11	I-215 NB Ramps / Harley Knox Bl.	TS	13.6	22.2	B	C	15.1	29.5	B	C	D

[1] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] CSS = Cross-street Stop; TS = Traffic Signal; CSS = Improvement

Source: (Urban Crossroads, 2015a, Table 6-1)

Table 4.15-18 Opening Year (2017) plus Cumulative Intersection Analysis (E+A+P+C)

#	Intersection	Traffic Control[2]	Existing (2015) Delay[2] (secs.) AM	Existing (2015) Delay[2] (secs.) PM	Existing (2015) Level of Service AM	Existing (2015) Level of Service PM	EAPC (2017) Delay[2] (secs.) AM	EAPC (2017) Delay[2] (secs.) PM	EAPC (2017) Level of Service AM	EAPC (2017) Level of Service PM	Acceptable LOS
1	Dwy. 1 / Oleander Av.	CSS	Future Intersection				0.0	0.0	A	A	C
2	Dwy. 2 / Oleander Av.	CSS	Future Intersection				8.4	8.5	A	A	C
3	Dwy. 3 / Oleander Av.	CSS	Future Intersection				8.4	8.6	A	A	C
4	Decker Rd. / Oleander Av.	CSS	Future Intersection				8.5	8.7	A	A	D
5	Dwy. 4 / Oleander Av.	CSS	Future Intersection				8.5	8.8	A	A	C
6	Dwy. 5 / Oleander Av.	CSS	Future Intersection				8.5	8.9	A	A	C
7	Dwy. 6 / Oleander Av.	CSS	8.9	0.0	A	A	10.2	9.5	B	A	C
8	Harvill Av. / Harley Knox Bl.	TS	32.8	32.2	C	C	**104.4**	**183.7**	**F**	**F**	D
9	Harvill Av. / Oleander Av.	TS	6.5	4.6	A	A	10.1	13.1	B	B	D
10	I-215 SB Ramps / Harley Knox Bl.	TS	37.0	26.8	D	C	**168.2**	**107.3**	**F**	**F**	D
11	I-215 NB Ramps / Harley Knox Bl.	TS	13.6	22.2	B	C	36.8	**179.8**	D	**F**	D

* **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] CSS = Cross-street Stop; TS = Traffic Signal; CSS = Improvement

Source: (Urban Crossroads, 2015a, Table 7-1)

at acceptable LOS under E+A+P+C traffic conditions, with the exception of the following intersections (Urban Crossroads, 2015a, p. 85):

- Harvill Avenue / Harley Knox Boulevard (Intersection #8) in the AM and PM peak hours;
- I-215 Southbound Ramps / Harley Knox Boulevard (Intersection #10) in the AM and PM peak hours; and
- I-215 Northbound Ramps / Harley Knox Boulevard (Intersection #11) in the PM peak hour.

The Project would contribute substantial traffic to the projected cumulative LOS deficiencies at the intersections listed above. Therefore, the Project's contribution to the significant impacts at the above-listed intersections would be cumulatively considerable under E+A+P+C traffic conditions and mitigation is required.

2. Traffic Signal Warrant Analysis

Under E+A+P+C traffic conditions, no unsignalized intersections within the Project study area warrant consideration of a traffic signal (Urban Crossroads, 2015a, p. 89). Therefore, there is no potential to the Project to contribute to a need to install new traffic signals within the Project study area. The Project's impact would be less than significant under E+A+P+C conditions.

E. Horizon Year (2035) Traffic Impact Analysis

Projected weekday ADT volumes and peak hour intersection volumes Horizon Year (2035) traffic conditions are shown on Figure 4.15-14, *Horizon Year (2035) Traffic Volumes*.

1. Intersection Operations Analysis

Table 4.15-19, Horizon Year (2035) Intersection Analysis, summarizes the LOS at study area intersections during the AM and PM peak hours under Horizon Year (2035) traffic conditions. As shown in Table 4.15-19, all Project study area intersections are anticipated to operate at acceptable LOS under Horizon Year (2035) traffic conditions, with the exception of the following intersections (Urban Crossroads, 2015a, p. 100):

- Decker Road / Oleander Avenue (Intersection #4) in the AM and PM peak hours;
- Harvill Avenue / Harley Knox Boulevard (Intersection #8) in the AM and PM peak hours;
- I-215 Southbound Ramps / Harley Knox Boulevard (Intersection #10) in the AM and PM peak hours; and
- I-215 Northbound Ramps / Harley Knox Boulevard (Intersection #11) in the AM and PM peak hours.

The Project would contribute substantial traffic to the projected cumulative LOS deficiencies at the intersections listed above. Therefore, the Project's contribution to the significant impacts at the above-listed intersections would be cumulatively considerable under Horizon Year (2035) traffic conditions and mitigation is required.

Table 4.15-19 Horizon Year (2035) Intersection Analysis

#	Intersection	Traffic Control[3]	2035 Without Project				2035 With Project				Acceptable LOS
			Delay[2] (secs.)		Level of Service		Delay[2] (secs.)		Level of Service		
			AM	PM	AM	PM	AM	PM	AM	PM	
1	Dwy. 1 / Oleander Av.	CSS	Future Intersection				9.9	11.7	A	B	C
2	Dwy. 2 / Oleander Av.	CSS	Future Intersection				10.0	12.0	B	B	C
3	Dwy. 3 / Oleander Av.	CSS	Future Intersection				10.1	12.2	B	B	C
4	Decker Rd. / Oleander Av.	CSS	**>100.0**	**>100.0**	**F**	**F**	**>100.0**	**>100.0**	**F**	**F**	D
5	Dwy. 4 / Oleander Av.	CSS	Future Intersection				10.0	12.2	B	B	C
6	Dwy. 5 / Oleander Av.	CSS	Future Intersection				10.0	12.4	B	B	C
7	Dwy. 6 / Oleander Av.	CSS	0.0	0.0	A	A	11.1	16.6	B	C	C
8	Harvill Av. / Harley Knox Bl.	TS	22.7	**177.4**	C	**F**	**113.6**	**181.9**	**F**	**F**	D
9	Harvill Av. / Oleander Av.	TS	24.9	25.9	C	C	29.8	41.4	C	D	D
10	I-215 SB Ramps / Harley Knox Bl.	TS	**140.0**	**119.4**	**F**	**F**	**156.4**	**139.1**	**F**	**F**	D
11	I-215 NB Ramps / Harley Knox Bl.	TS	**60.8**	**>200.0**	**E**	**F**	**67.5**	**>200.0**	**E**	**F**	D

[1] **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[2] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] CSS = Cross-street Stop; TS = Traffic Signal; CSS = Improvement

Source: (Urban Crossroads, 2015a, Table 8-1)

2. Traffic Signal Warrant Analysis

❑ Without Project Traffic

Under Horizon Year (2035) traffic conditions, no unsignalized intersections in the Project study area warrant a traffic signal with the exception of the Decker Road / Oleander Avenue intersection (Intersection #4) (Urban Crossroads, 2015a, p. 100). The Project would contribute substantial traffic to Intersection #4 under Horizon Year (2035) traffic conditions; therefore, the Project's contribution to the traffic signal warrant at this intersection is cumulatively considerable and mitigation is required.

Threshold b) Would the Project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

The *Riverside County CMP* prepared by RCTC is applicable to the Project because of the subject property's proximity to freeway mainline segments and major intersections that are designated as part of the *CMP* roadway system. The CMP facilities located within the Project study area were previously described in Subsection 4.15.2G.

As described above under Threshold (a), the Project would result in cumulatively considerable traffic impacts to the following *CMP* intersections that are projected to operate at deficient LOS under Opening Year plus Cumulative (2017, E+A+P+C) and Horizon Year (2035) traffic scenarios.

- I-215 Southbound Ramps / Harley Knox Boulevard (Intersection #10); and
- I-215 Northbound Ramps / Harley Knox Boulevard (Intersection #11).

Accordingly, the Project's contribution to the projected conflict with the *Riverside County CMP* LOS standards at the above-listed intersections would be cumulatively considerable and mitigation is required.

The remainder of the analysis under this Threshold will focus on the Project's potential effects to regional freeway facilities that are part of the *Riverside County CMP* freeway network segments in the Project's vicinity, including I-215 and SR-60. For purposes of this analysis, freeway segments located near the Project site have been broken into smaller segments defined by the freeway-to-arterial interchange locations. The findings of the freeway impact analysis are presented below and in *Technical Appendices J1* and *J2*.

A. Short-Term Construction CMP Impact Analysis

As previously described under the analysis for Threshold (a), above, vehicular traffic associated with construction employees would be less than daily and peak hour traffic volumes generated during Project operational activities, and is not expected to result in a substantial adverse effect to the local roadway system. Deliveries of construction materials to the Project site would also have a nominal effect to the local roadway network. Construction materials would be delivered to the site throughout the construction phase based on need and would not occur on a daily basis. Therefore, the Project is not expected to generate substantial peak-hour traffic during the construction phase. As shown in Table 4.15-7, all of the freeway ramps in the Project's study area provide adequate stacking lengths under existing conditions. Because the Project would not generate substantial peak-hour traffic during the construction phase, the temporary addition of Project-related traffic to freeway ramps has no potential to degrade traffic movement (i.e., stacking) to a deficient level.

As shown in Table 4.15-5, and Table 4.15-6, all freeway mainline segments and freeway ramp merge/diverge areas in the Project's study area operate at acceptable LOS under existing conditions. Because the Project is not expected to generate substantial peak-hour traffic during the construction phase, the temporary addition of Project-related traffic to these freeway facilities has no potential to degrade traffic movement to a deficient level.

Based on the foregoing information, traffic generated by the Project's construction phase would not result in a conflict with an applicable *CMP* because adequate LOS would be maintained on all *Riverside County CMP* freeway facilities in the Project study area. The Project's impacts to *CMP* freeway facilities during the construction phase would be less than significant on a direct basis and would not be cumulatively considerable.

B. Existing plus Project (E+P) CMP Impact Analysis

1. Freeway Mainline Segment Operations Analysis

E+P freeway mainline volumes during the AM and PM peak hours are summarized in Table 4.15-5, *Freeway Mainline Segment Analysis for Existing and Existing plus Project (E+P) Conditions*. As shown in Table 4.15-5, all freeway mainline segments in the vicinity of the Project would operate at

acceptable LOS under E+P conditions (Urban Crossroads, 2015b, p. 7). Therefore, the Project's contribution of traffic to freeway mainline segments under E+P traffic conditions is determined to be less than significant on both a direct and cumulative basis.

The freeway mainline segments listed in Table 4.15-5 include segments that would receive the highest concentration of traffic from the Project. However, Project-related traffic does not stop at the limits of the freeway mainline segments listed in Table 4.15-5. Rather, Project-related traffic continues to travel throughout the Southern California region along the State highway system, dissipating as distance from the Project site increases. As such, Project-related traffic has the potential to travel along freeway mainline segments that experience unacceptable levels of service, including but not limited to *Riverside County CMP* segments of SR-60, SR-91, I-15, I-215, and I-10, as well as freeway segments located outside of Riverside County, such as I-5, I-15, I-110, I-405, and I-710, among others. All State highway system facilities that operate at an unacceptable LOS are considered to be cumulatively impacted; however, because the Project would contribute fewer than 50 peak hour trips to congested freeway segments beyond the Project's study area, the Project's effect to *Riverside County CMP* freeway facilities and other freeway facilities located outside of Riverside County would be less than significant under E+P conditions.

2. Freeway Off-Ramp Queuing Analysis

Table 4.15-20, *Peak Hour Off-Ramp Queuing Summary for Existing plus Project (E+P) Conditions*, summarizes freeway ramp queuing under E+P traffic conditions at study area off-ramps during the AM and PM peak hours. As shown on Table 4.15-20, all freeway ramps in the Project study area are projected to experience acceptable stacking lengths during the AM and PM peak hours under E+P traffic conditions, which would preclude "spill back" of traffic from this interchange onto adjacent freeway mainline segments (Urban Crossroads, 2015a, p. 69). Accordingly, the Project would not cause or contribute to deficient operations at Project study area freeway off-ramps under E+P conditions and the Project's impact to *CMP* freeway off-ramps is determined to be less than significant on a direct and cumulative basis.

3. Freeway Ramp Merge/Diverge Junction Analysis

Table 4.15-21, *Freeway Ramp Junction Merge/Diverge Analysis for Existing plus Project (E+P) Conditions*, summarizes freeway merge/diverge operations within the study area during the AM and PM peak hours under E+P traffic conditions. As shown on Table 4.15-21, all freeway ramp merge/diverge junctions in the Project study area are projected to operate at acceptable LOS during the AM and PM peak hours under E+P traffic conditions (Urban Crossroads, 2015a, p. 69). Accordingly, the Project would not cause or contribute to deficient operations at Project study area freeway ramp merge/diverge junctions under E+P conditions and the Project's impact to *CMP* freeway ramp merge/diverge junctions is determined to be less than significant on a direct and cumulative basis.

Table 4.15-20 Peak Hour Off-Ramp Queuing Summary for Existing plus Project (E+P) Conditions

Intersection	Movement	Available Stacking Distance (Feet)	Existing (2015)				Existing plus Project			
			95th Percentile Queue (Feet)[2]		Acceptable?[1]		95th Percentile Queue (Feet)[2]		Acceptable?[1]	
			AM Peak	PM Peak	AM	PM	AM Peak	PM Peak	AM	PM
I-215 SB Off-Ramp / Harley Knox Bl.	SBL/T	1,330	383	339	Yes	Yes	379	341	Yes	Yes
	SBR	270	44	60	Yes	Yes	52	64	Yes	Yes
I-215 NB Off-Ramp / Harley Knox Bl.	NBL/T	1,120	13	22	Yes	Yes	51	44	Yes	Yes
	NBR	265	47	52	Yes	Yes	47	53	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] Maximum queue length for the approach reported.

Source: (Urban Crossroads, 2015a, Table 5-2)

Table 4.15-21 Freeway Ramp Junction Merge/Diverge Analysis for Existing plus Project (E+P) Conditions

Freeway	Direction	Ramp or Segment	Lanes on Freeway[1]	Existing (2015)				Existing Plus Project			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Density[2]	LOS	Density[2]	LOS	Density[2]	LOS	Density[2]	LOS
I-215 Freeway	SB	Off-Ramp at Harley Knox Boulevard	3	20.2	C	27.5	C	20.7	C	27.7	C
		On-Ramp at Harley Knox Boulevard	3	15.1	B	21.5	C	15.2	B	21.8	C
	NB	On-Ramp at Harley Knox Boulevard	3	25.8	C	21.9	C	26.0	C	22.4	C
		Off-Ramp at Harley Knox Boulevard	3	25.1	C	20.0	B	25.3	C	20.0	C

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Source: (Urban Crossroads, 2015a, Table 5-4)

C. Opening Year (2017) CMP Impact Analysis (E+A+P)

1. Freeway Mainline Segment Operations Analysis

Table 4.15-22, *Freeway Mainline Segment Analysis for Opening Year (2017) Conditions*, summarizes the peak hour LOS of freeway mainline segments within the Project study area under E+A+P traffic conditions. As shown in Table 4.15-22, all of the freeway mainline segments in the vicinity of the Project would operate at an acceptable LOS under E+A+P traffic conditions. (Urban Crossroads, 2015b, p. 7) Accordingly, the Project's contribution of traffic to *CMP* freeway mainline segments would not cause or contribute to a projected LOS deficiency under E+A+P conditions and the Project's impact to *CMP* freeway mainline segments is determined to be less than significant on both a direct and cumulative basis.

The freeway mainline segments listed in Table 4.15-22 include the segments that would receive the highest concentration of traffic from the Project. However, Project-related traffic does not stop at the limits of the freeway mainline segments listed in Table 4.15-22. Rather, Project-related traffic continues to travel throughout the Southern California region along the State highway system, dissipating as distance from the Project site increases. As such, Project-related traffic has the potential to travel along freeway mainline segments that experience unacceptable levels of service, including but not limited to *Riverside County CMP* segments of SR-60, SR-91, I-15, I-215, and I-10 as well as freeway segments located outside of Riverside County, such as I-5, I-15, I-110, I-405, and I-710, among others. All State highway system facilities that operate at an unacceptable LOS are considered to be cumulatively impacted, however, because the Project would contribute fewer than 50 peak hour trips to congested freeway segments beyond the Project's study area, the Project's effect to *Riverside County CMP* freeway facilities and other freeway facilities located outside of Riverside County would not be cumulatively considerable under E+A+P traffic conditions.

2. Freeway Off-Ramp Queuing Analysis

Table 4.15-23, *Peak Hour Freeway Off-Ramp Queuing Summary for Opening Year (E+A+P) Conditions*, summarizes freeway ramp queuing under E+A+P traffic conditions at study area off-ramps during the AM and PM peak hours. As shown on Table 4.15-23, all freeway ramps are projected to experience acceptable stacking lengths during the AM and PM peak hours under E+A+P traffic conditions, which would preclude "spill back" of traffic from this interchange onto adjacent freeway mainline segments (Urban Crossroads, 2015a, p. 79). Accordingly, the Project would not cause or contribute to deficient operations at Project study area freeway off-ramps under E+A+P conditions and the Project's impact to *CMP* freeway off-ramps is determined to be less than significant on a direct and cumulative basis.

3. Freeway Ramp Merge/Diverge Junction Analysis

Table 4.15-24, *Freeway Ramp Junction Merge/Diverge Analysis for Opening Year (E+A+P) Conditions*, summarizes freeway ramp merge/diverge junction operations within the study area during the AM and PM peak hours under E+A+P traffic conditions. As shown on Table 4.15-24, all freeway

Table 4.15-22 Freeway Mainline Segment Analysis for Opening Year (2017) Conditions

Freeway	Direction	Mainline Segment	Lanes[1]	Time Period	EAP (2017)			EAPC (2017)		
					Volume[2]	Density[3]	LOS	Volume[2]	Density[3]	LOS
I-215 Freeway	Southbound	SR-60/SR-91 Freeway to Blaine St.	5	AM	4,490	14.3	B	5,147	16.8	B
				PM	6,161	19.7	C	6,551	21.2	C
		Blaine St. to University Av.	4	AM	4,549	18.2	C	5,265	21.8	C
				PM	4,394	17.3	B	4,823	19.3	C
		University Av. to Martin Luther King Bl.	4	AM	4,857	19.9	C	5,632	24.2	C
				PM	5,407	21.9	C	5,874	24.4	C
		Martin Luther King Bl. to Central Av.	5	AM	3,630	11.5	B	4,470	14.6	B
				PM	4,716	14.8	B	5,224	16.6	B
		Central Av. to Box Springs Rd.	5	AM	5,329	17.0	B	6,230	20.5	C
				PM	7,007	22.3	C	7,555	24.7	C
		Box Springs Rd. to SR-60/I-215 Freeway	4	AM	4,861	19.1	C	5,847	24.3	C
				PM	6,223	28.2	D	6,818	28.9	D
		SR-60 Freeway to Eucalyptus Av.	5	AM	6,559	21.0	C	7,928	27.2	D
				PM	6,771	21.9	C	7,605	25.4	C
		Eucalyptus Av. to Alessandro Bl.	3	AM	3,641	19.8	C	5,076	31.2	D
				PM	5,391	33.0	D	6,269	**44.4**	**E**
		Alessandro Bl. to Cactus Av.	4	AM	5,236	21.1	C	6,735	30.1	D
				PM	5,789	23.7	C	6,710	29.2	D
		Cactus Av. to Van Buren Bl.	**4**	AM	4,932	27.8	D	5,997	24.6	C
				PM	595	33.8	D	7,122	31.8	D
		Van Buren Bl. to Harley Knox Bl.	3	AM	2,696	14.3	B	3,753	20.9	C
				PM	4,036	21.7	C	5,121	30.7	D
		Harley Knox Bl. to Ramona Exwy.	3	AM	2,284	12.0	B	2,867	15.4	B
				PM	3,605	19.1	C	4,755	27.5	D
I-215 Freeway	Northbound	SR-60/SR-91 Freeway to Blaine St.	5	AM	3,688	11.7	B	4,022	12.9	B
				PM	3,627	11.6	B	4,338	14.2	B
		Blaine St. to University Av.	5	AM	4,815	15.6	B	5,182	16.8	B
				PM	4,105	13.4	B	4,879	16.3	B
		University Av. to Martin Luther King Bl.	4	AM	6,803	29.4	D	7,204	32.6	D
				PM	6,120	25.7	C	6,956	31.8	D
		Martin Luther King Bl. to Central Av.	4	AM	5,481	22.5	C	5,916	24.8	C
				PM	5,582	23.1	C	6,488	28.8	D
		Central Av. to Box Springs Rd.	5	AM	5,318	17.3	B	5,787	19.0	C
				PM	5,876	19.6	C	6,848	23.7	C
		Box Springs Rd. to SR-60/I-215 Freeway	4	AM	6,285	25.6	C	6,796	29.0	D
				PM	6,595	27.4	D	7,660	**35.6**	**E**
		SR-60 Freeway to Eucalyptus Av.	3	AM	3,732	19.7	C	4,449	24.6	C
				PM	4,039	21.6	C	5,514	34.6	D
		Eucalyptus Av. to Alessandro Bl.	3	AM	4,903	27.6	D	5,657	**35.3**	**E**
				PM	5,623	34.3	D	7,167	**62.5**	**F**
		Alessandro Bl. to Cactus Av.	**5**	AM	2,856	11.5	B	3,647	11.9	B
				PM	2,681	10.7	A	4,295	14.3	B
		Cactus Av. to Van Buren Bl.	**4**	AM	3,850	20.6	C	5,185	21.1	C
				PM	2,842	15.1	B	4,216	17.2	B
		Van Buren Bl. to Harley Knox Bl.	3	AM	4,280	23.3	C	5,279	31.9	D
				PM	3,434	18.2	C	4,517	25.9	C
		Harley Knox Bl. to Ramona Exwy.	3	AM	3,891	20.7	C	4,941	28.7	D
				PM	2,900	15.2	B	3,501	18.8	C

[4] **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and reflect new auxiliary lanes and assume the HOV lane in each direction.

[2] Volumes shown on this table have been reduced to account for the proposed HOV lane in each direction.

[3] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Source: (Urban Crossroads, 2015b, Table 4)

Table 4.15-23 Peak Hour Freeway Off-Ramp Queuing Summary for Opening Year (E+A+P) Conditions

Intersection	Movement	Available Stacking Distance (Feet)	Existing (2015)				EAP (2017)			
			95th Percentile Queue (Feet)[2]		Acceptable?[1]		95th Percentile Queue (Feet)[2]		Acceptable?[1]	
			AM Peak	PM Peak	AM	PM	AM Peak	PM Peak	AM	PM
I-215 SB Off-Ramp / Harley Knox Bl.	SBL/T	1,330	383	339	Yes	Yes	390	353	Yes	Yes
	SBR	270	44	60	Yes	Yes	51	63	Yes	Yes
I-215 NB Off-Ramp / Harley Knox Bl.	NBL/T	1,120	13	22	Yes	Yes	51	44	Yes	Yes
	NBR	265	47	52	Yes	Yes	49	54	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] Maximum queue length for the approach reported.

Source: (Urban Crossroads, 2015a, Table 6-2)

Table 4.15-24 Freeway Ramp Junction Merge/Diverge Analysis for Opening Year (E+A+P) Conditions

Freeway	Direction	Ramp or Segment	Lanes on Freeway[1]	Existing (2015)				EAP (2017)			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Density[2]	LOS	Density[2]	LOS	Density[2]	LOS	Density[2]	LOS
I-215 Freeway	SB	Off-Ramp at Harley Knox Boulevard	3	20.2	C	27.5	C	21.3	C	28.6	D
		On-Ramp at Harley Knox Boulevard	3	15.1	B	21.5	C	15.7	B	22.5	C
	NB	On-Ramp at Harley Knox Boulevard	3	25.8	C	21.9	C	26.9	C	23.1	C
		Off-Ramp at Harley Knox Boulevard	3	25.1	C	20.0	B	26.1	C	20.7	C

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Source: (Urban Crossroads, 2015a, Table 6-4)

ramp merge/diverge junctions are projected to operate at acceptable LOS during the AM and PM peak hours under E+A+P conditions (Urban Crossroads, 2015a, p. 79). Accordingly, the Project would not cause or contribute to deficient operations at Project study area freeway ramp merge/diverge junctions under E+A+P conditions and the Project's impact to *CMP* freeway ramp merge/diverge junctions is determined to be less than significant on a direct and cumulative basis.

D. Opening Year (2017) plus Cumulative CMP Impact Analysis (E+A+P+C)

1. Freeway Mainline Segment Operations Analysis

Table 4.15-22 summarizes the LOS of freeway mainline segments within the Project study area under E+A+P+C conditions. As shown in Table 4.15-22, all freeway mainline segments in the Project study area would operate at acceptable LOS under E+A+P+C conditions, with the exception of the following three segments (Urban Crossroads, 2015b, p. 8):

- I-215 Southbound, Eucalyptus Avenue to Alessandro Boulevard (Freeway Segment #8) in the PM peak hour;
- I-215 Northbound, Box Springs Road to SR-60/ I-215 Freeway (Freeway Segment #18) in the PM peak hour; and
- I-215 Northbound, Eucalyptus Avenue to Alessandro Boulevard (Freeway Segment #20) in the AM and PM peak hours.

The Project would contribute substantial traffic to the projected cumulative LOS deficiencies at the freeway mainline segments listed above. Therefore, the Project's traffic contributions at the above-listed *CMP* freeway mainline segments would be cumulatively considerable under E+A+P+C conditions and mitigation is required. (Urban Crossroads, 2015b, p. 8)

The freeway mainline segments listed in Table 4.15-22 include the segments that would receive the highest concentration of traffic from the Project. However, Project-related traffic does not stop at the limited of the freeway mainline segments listed in Table 4.15-22. Rather, Project-related traffic continues to travel throughout the Southern California region along the State highway system, dissipating as distance from the Project site increases. As such, Project-related traffic has the potential to travel along freeway mainline segments that experience unacceptable levels of service, including but not limited to *Riverside County CMP* segments of SR-60, SR-91, I-15, I-215, and I-10 as well as freeway segments located outside of Riverside County, such as I-5, I-15, I-110, I-405, and I-710, among others. All State highway system facilities that operate at an unacceptable LOS are considered to be cumulatively impacted, however, because the Project would contribute fewer than 50 peak hour trips to congested freeway segments beyond the Project's study area, the Project's effect to *Riverside County CMP* freeway facilities and other freeway facilities located outside of Riverside County would not be cumulatively considerable under E+A+P+C traffic conditions.

2. Freeway Off-Ramp Queuing Analysis

Table 4.15-25, *Peak Hour Freeway Off-Ramp Queuing Summary for Opening Year plus Cumulative (E+A+P+C) Conditions*, summarizes peak hour freeway off-ramp queuing in the Project study area

under E+A+P+C traffic conditions. As shown on Table 4.15-25, all study area freeway ramps experience acceptable stacking lengths during the AM and PM peak hours under E+A+P+C traffic conditions with the exception of the following ramp (Urban Crossroads, 2015a, p. 89):

- I-215 Southbound Ramps / Harley Knox Boulevard (Ramp #1), southbound shared left-through lane in the AM peak hour.

The Project would contribute substantial traffic to the projected cumulative LOS deficiency at the freeway ramp listed above. Therefore, the Project's traffic contributions at the above-listed *CMP* freeway ramp would be cumulatively considerable under E+A+P+C conditions and mitigation is required.

3. Freeway Ramp Merge/Diverge Junction Analysis

Table 4.15-26, *Freeway Ramp Junction Merge/Diverge Analysis for Opening Year plus Cumulative (E+A+P+C) Conditions*, summarizes peak hour freeway ramp junction merge/diverge operations within the study area under E+A+P+C traffic conditions. As shown in Table 4.15-26, all merge/diverge areas operate at acceptable LOS under E+A+P+C traffic conditions (Urban Crossroads, 2015a, p. 89). Therefore, the Project's effect to *CMP* freeway ramp merge/diverge junctions in the study area would not be cumulatively considerable under E+A+P+C traffic conditions.

E. Horizon Year (2035) CMP Impact Analysis

1. Freeway Mainline Segment Operations Analysis

Table 4.15-27, *Freeway Mainline Segment Analysis for Horizon Year (2035)*, summarizes the LOS along freeway mainline segments within the Project study area under Horizon Year (2035) traffic conditions. As shown in Table 4.15-27, all freeway mainline segments located in the Project study area would operate at acceptable LOS under Horizon Year (2035) traffic conditions with the exception of the following segments (Urban Crossroads, 2015b, p. 8):

- I-215 Southbound, Van Buren Boulevard to Harley Knox Boulevard (Freeway Segment #11) in the AM and PM peak hours;
- I-215 Northbound, Martin Luther King Boulevard to Central Avenue (Freeway Segment #16) in the AM and PM peak hours;
- I-215 Northbound, SR-60 Freeway to Eucalyptus Avenue (Freeway Segment #19) in the AM and PM peak hours; and
- I-215 Northbound, Van Buren Boulevard to Harley Knox Boulevard (Freeway Segment #23) in the AM and PM peak hours.

The Project would contribute substantial traffic to the projected cumulative LOS deficiencies at the freeway mainline segments listed above. Therefore, the Project's traffic contributions at the above-listed *CMP* freeway mainline segments would be cumulatively considerable under Horizon Year (2035) conditions and mitigation is required. (Urban Crossroads, 2015b, p. 8)

Table 4.15-25 Peak Hour Freeway Off-Ramp Queuing Summary for Opening Year plus Cumulative (E+A+P+C) Conditions

Intersection	Movement	Available Stacking Distance (Feet)	Existing (2015)				EAPC (2017)			
			95th Percentile Queue (Feet)[2]		Acceptable?[1]		95th Percentile Queue (Feet)[2]		Acceptable?[1]	
			AM Peak	PM Peak	AM	PM	AM Peak	PM Peak	AM	PM
I-215 SB Off-Ramp / Harley Knox Bl.	SBL/T	1,330	383	339	Yes	Yes	1,910 [3]	1,014 [3]	No	Yes
	SBR	270	44	60	Yes	Yes	102	145	Yes	Yes
I-215 NB Off-Ramp / Harley Knox Bl.	NBL/T	1,120	13	22	Yes	Yes	52	73	Yes	Yes
	NBR	265	47	52	Yes	Yes	246 [3]	126	Yes	Yes

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] Maximum queue length for the approach reported.

[3] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

Source: (Urban Crossroads, 2015a, Table 7-2)

Table 4.15-26 Freeway Ramp Junction Merge/Diverge Analysis for Opening Year plus Cumulative (E+A+P+C) Conditions

Freeway	Direction	Ramp or Segment	Lanes on Freeway[1]	Existing (2015)				EAPC (2017)			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Density[2]	LOS	Density[2]	LOS	Density[2]	LOS	Density[2]	LOS
I-215 Freeway	SB	Off-Ramp at Harley Knox Boulevard	3	20.2	C	27.5	C	29.2	D	34.7	D
		On-Ramp at Harley Knox Boulevard	3	15.1	B	21.5	C	19.3	B	30.0	D
	NB	On-Ramp at Harley Knox Boulevard	3	25.8	C	21.9	C	33.2	D	31.3	D
		Off-Ramp at Harley Knox Boulevard	3	25.1	C	20.0	B	32.0	D	24.5	C

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Source: (Urban Crossroads, 2015a, Table 7-4)

Table 4.15-27 Freeway Mainline Segment Analysis for Horizon Year (2035)

Freeway	Direction	Mainline Segment	Lanes[1]	Time Period	2035 Without Project			2035 With Project		
					Volume[2]	Density[3]	LOS	Volume[2]	Density[3]	LOS
I-215 Freeway	Southbound	SR-60/SR-91 Freeway to Blaine St.	5	AM	7,169	24.7	C	7,195	24.8	C
				PM	7,093	24.2	C	7,106	24.7	C
		Blaine St. to University Av.	4	AM	6,812	31.5	D	6,837	31.7	D
				PM	6,735	30.9	D	6,748	31.0	D
		University Av. to Martin Luther King Bl.	4	AM	6,991	33.1	D	7,017	33.3	D
				PM	6,915	32.2	D	6,928	32.3	D
		Martin Luther King Bl. to Central Av.	5	AM	8,000	28.3	D	8,026	28.4	D
				PM	7,919	27.7	D	7,932	27.9	D
		Central Av. to Box Springs Rd.	5	AM	8,882	32.4	D	8,908	32.6	D
				PM	8,799	31.7	D	8,813	31.8	D
		Box Springs Rd. to SR-60/I-215 Freeway	4	AM	6,705	30.9	D	6,731	31.1	D
				PM	6,607	30.0	D	6,621	30.1	D
		SR-60 Freeway to Eucalyptus Av.	5	AM	5,506	19.6	C	5,546	19.7	C
				PM	5,387	19.0	C	5,407	19.2	C
		Eucalyptus Av. to Alessandro Bl.	3	AM	5,351	33.4	D	5,390	33.8	D
				PM	5,231	32.0	D	5,252	32.2	D
		Alessandro Bl. to Cactus Av.	4	AM	5,500	23.1	C	5,543	23.4	C
				PM	5,381	22.3	C	5,403	22.6	C
		Cactus Av. to Van Buren Bl.	**4**	AM	5,170	20.9	C	5,212	21.2	C
				PM	6,004	25.4	C	6,025	25.5	C
		Van Buren Bl. to Harley Knox Bl.	3	AM	5,961	**38.1**	**E**	6,003	**39.0**	**E**
				PM	5,903	**37.4**	**E**	5,925	**37.7**	**E**
		Harley Knox Bl. to Ramona Exwy.	3	AM	4,421	22.8	C	4,429	22.9	C
				PM	5,362	30.9	D	5,381	31.1	D
I-215 Freeway	Northbound	SR-60/SR-91 Freeway to Blaine St.	5	AM	7,086	24.2	C	7,098	24.3	C
				PM	7,184	24.8	C	7,214	24.9	C
		Blaine St. to University Av.	5	AM	6,728	22.9	C	6,740	22.9	C
				PM	6,826	23.3	C	6,856	23.5	C
		University Av. to Martin Luther King Bl.	4	AM	6,908	32.2	D	6,920	32.3	D
				PM	7,006	33.2	D	7,035	33.4	D
		Martin Luther King Bl. to Central Av.	4	AM	7,912	**40.0**	**E**	7,924	**40.1**	**E**
				PM	8,014	**41.4**	**E**	8,045	**41.7**	**E**
		Central Av. to Box Springs Rd.	5	AM	8,793	31.7	D	8,804	31.7	D
				PM	8,897	32.5	D	8,927	32.7	D
		Box Springs Rd. to SR-60/I-215 Freeway	4	AM	6,599	30.0	D	6,611	30.1	D
				PM	6,724	31.1	D	6,754	31.3	D
		SR-60 Freeway to Eucalyptus Av.	3	AM	5,378	**38.1**	**E**	5,396	**38.3**	**E**
				PM	5,526	**40.4**	**E**	5,571	**41.1**	**E**
		Eucalyptus Av. to Alessandro Bl.	3	AM	5,223	31.9	D	5,241	32.0	D
				PM	5,370	33.6	D	5,416	33.6	D
		Alessandro Bl. to Cactus Av.	**5**	AM	5,372	17.5	B	5,392	17.6	B
				PM	5,520	18.2	C	5,568	18.3	C
		Cactus Av. to Van Buren Bl.	**4**	AM	6,181	26.3	D	6,200	26.4	D
				PM	4,535	18.1	C	4,584	18.3	C
		Van Buren Bl. to Harley Knox Bl.	3	AM	5,889	**37.4**	**E**	5,918	**37.6**	**E**
				PM	5,970	**38.6**	**E**	6,018	**39.2**	**E**
		Harley Knox Bl. to Ramona Exwy.	3	AM	5,404	31.2	D	5,421	31.3	D
				PM	4,550	23.6	C	4,558	23.7	C

* **BOLD** = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and reflect new auxiliary lanes and assume the HOV lane in each direction.

[2] Volumes shown on this table have been reduced to account for the proposed HOV lane in each direction.

[3] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Source: (Urban Crossroads, 2015b, Table 5)

The freeway mainline segments listed in Table 4.15-27 include the segments that would receive the highest concentration of traffic from the Project. However, Project-related traffic does not stop at the limited of the freeway mainline segments listed in Table 4.15-27. Rather, Project-related traffic continues to travel throughout the Southern California region along the State highway system, dissipating as distance from the Project site increases. As such, Project-related traffic has the potential to travel along freeway mainline segments that experience unacceptable levels of service, including but not limited to *Riverside County CMP* segments of SR-60, SR-91, I-15, I-215, and I-10, as well as freeway segments located outside of Riverside County, such as I-5, I-15, I-110, I-405, and I-710, among others. All State highway system facilities that operate at an unacceptable LOS are considered to be cumulatively impacted; however, because the Project would contribute fewer than 50 peak hour trips to congested freeway segment beyond the Project's study area, the Project's effect to *Riverside County CMP* freeway facilities and other freeway facilities located outside of Riverside County would not be cumulatively considerable under Horizon Year (2035) conditions.

2. Freeway Off-Ramp Operations Analysis

Table 4.15-28, *Peak Hour Freeway Off-Ramp Queuing Summary for Horizon Year (2035)*, summarizes peak hour freeway off-ramp queuing in the Project study area under Horizon Year (2035) traffic conditions. As shown on Table 4.15-28, all freeway ramps experience acceptable stacking lengths during the AM and PM peak hours under Horizon Year (2035) conditions, both without and with Project traffic, with the exception of the follow two off-ramp facilities (Urban Crossroads, 2015a, p. 104):

- I-215 Southbound Ramps / Harley Knox Boulevard (Ramp #1), southbound shared left-through lane in the AM peak hour; and
- I-215 Southbound Ramp / Harley Knox Boulevard (Ramp #1), southbound right turn lane in the AM and PM peak hours.

The Project would contribute substantial traffic to the projected cumulative LOS deficiencies at the freeway ramp facilities listed above (Urban Crossroads, 2015a, p. 104). Therefore, the Project's traffic contributions at the above-listed CMP freeway ramp would be cumulatively considerable under Horizon Year (2035) conditions and mitigation is required.

3. Freeway Ramp Merge/Diverge Junction Analysis

As summarized in Table 4.15-29, *Freeway Ramp Junction Merge/Diverge Analysis for Horizon Year (2035)*, the following freeway ramp merge/diverge junctions would operate at unacceptable LOS under Horizon Year (2035) traffic conditions (Urban Crossroads, 2015a, p. 108):

- I-215 Southbound / North of Harley Knox Boulevard (Ramp Junction #1) in the AM and PM peak hours;
- I-215 Southbound / South of Harley Knox Boulevard (Ramp Junction #2) in the PM peak hour;

Table 4.15-28 Peak Hour Freeway Off-Ramp Queuing Summary for Horizon Year (2035)

Intersection	Movement	Available Stacking Distance (Feet)	2035 Without Project				2035 With Project			
			95th Percentile Queue (Feet)[2]		Acceptable?[1]		95th Percentile Queue (Feet)[2]		Acceptable?[1]	
			AM Peak	PM Peak	AM	PM	AM Peak	PM Peak	AM	PM
I-215 SB Off-Ramp / Harley Knox Bl.	SBL/T	1,330	**1,903** [3]	1,020 [3]	**No**	Yes	**1,903** [3]	1,020 [3]	**No**	Yes
	SBR	270	**361**	**771** [3]	**No**	**No**	**464**	**852** [3]	**No**	**No**
I-215 NB Off-Ramp / Harley Knox Bl.	NBL/T	1,120	151	640 [3]	Yes	Yes	146	668 [3]	Yes	Yes
	NBR	265	481 [3]	146	Yes[4]	Yes	414 [3]	150	Yes[4]	Yes

BOLD = 95th percentile queue is anticipated to exceed available storage.

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided. An additional 15 feet of stacking which is assumed to be provided in the transition for turn pockets is reflected in the stacking distance shown on this table, where applicable.

[2] Maximum queue length for the approach reported.

[3] 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.

[4] Adjacent through lane has sufficient storage to accommodate any spillover from the northbound right turn lane without spilling back and affecting the I-215 Freeway mainline.

Source: (Urban Crossroads, 2015a, Table 8-2)

Table 4.15-29 Freeway Ramp Junction Merge/Diverge Analysis for Horizon Year (2035)

Freeway	Direction	Ramp or Segment	Lanes on Freeway[1]	2035 Without Project				2035 With Project			
				AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Density[2]	LOS	Density[2]	LOS	Density[2]	LOS	Density[2]	LOS
I-215 Freeway	SB	Off-Ramp at Harley Knox Boulevard	3	**45.7**	F	**44.7**	F	**46.2**	F	**45.0**	F
		On-Ramp at Harley Knox Boulevard	3	31.4	D	**38.0**	E	31.4	D	**38.2**	E
	NB	On-Ramp at Harley Knox Boulevard	3	**41.6**	F	**45.4**	F	**41.8**	F	**45.9**	F
		Off-Ramp at Harley Knox Boulevard	3	**38.1**	E	33.6	D	**38.3**	E	33.7	D

BOLD = Unacceptable Level of Service

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

Source: (Urban Crossroads, 2015a, Table 8-4)

- I-215 Northbound / North of Harley Knox Boulevard (Ramp Junction #3) in the AM and PM peak hours; and
- I-215 Northbound / South of Harley Knox Boulevard (Ramp Junction #4) in the AM peak hour.

The Project would contribute substantial traffic to the projected cumulative LOS deficiencies at the freeway ramp merge/diverge junctions listed above (Urban Crossroads, 2015a, p. 108). Therefore, the Project's contribution to traffic congestion at the above-listed *CMP* freeway ramp merge/diverge junctions would be cumulatively considerable under Horizon (2035) conditions and mitigation is required.

Threshold c) Would implementation of the Project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

The proposed Project does not contain an air travel component (e.g., runways, helipads); thus, air traffic volumes would not be changed as a result of the Project.

As previously described in EIR Section 3.0, *Project Description*, the Project would develop the subject property with two business park warehouse buildings and related improvements, including parking areas, loading bays, detention basins, and landscaping. The tallest features on the Project site would not exceed a height of 45 feet above finished grade, and would not include any component that would obstruct the flight path or change air traffic patterns. Furthermore, the Project was subject to review by the Riverside County ALUC, which found that the Project would be fully consistent with the March Air Reserve Base ALUCP and would not contain design features that would alter air traffic patterns and/or result in a substantial safety risk to flight. A copy of the ALUC staff report that contains the conditions of approval imposed on the Project by the ALUC are included in Project's Administrative Record for this EIR on file with the County of Riverside.

Based on the foregoing information, the Project would not have the potential to affect air traffic patterns, including an increase in traffic levels or a change in flight path location that results in substantial safety risks. No impact would occur.

Threshold d) Would the Project alter waterborne, rail or air traffic?

As noted above under Threshold (c), the Project does not propose any land uses that would interfere with air traffic. The Project site is approximately 1,500 feet from the nearest railroad track, and does not propose any land uses with a rail component or with potential to conflict with rail traffic. The Project site is not located within the vicinity of waterborne traffic routes, nor does the Project propose any land uses with a potential to conflict with waterborne traffic. Accordingly, the Project would not alter waterborne, rail, or air traffic; no impact would occur.

Threshold e) Would the Project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The Project would be compatible with the "Business Park" and "Light Industrial" land uses planned to the north and west of the Project site by the County of Riverside General Plan. Although areas to the south and west of the Project site are planned by the General Plan for residential land uses, the Project would not send truck traffic to these areas (as previously shown on Figure 4.15-10, all of the Project's truck traffic would flow east of the Project site, toward I-215). Therefore, implementation of the Project would not create a transportation hazard as a result of an incompatible use.

Proposed roadway improvements along the Project site frontage would occur within the public right-of-ways would be installed in conformance with County design standards. The County of Riverside Transportation Department reviewed the Project's application materials (refer to EIR Section 3.0, *Project Description*) and determined that no hazardous transportation design features would be introduced by the Project. Additionally, a construction traffic control plan is recommended by this EIR (refer to EIR Subsection 4.15.8) to safely route traffic along abutting roadways during temporary construction activities and to maintain adequate emergency access.

Accordingly, the proposed Project would not create or substantially increase safety hazards due to a design feature or incompatible use. The Project would result in a less-than-significant impact.

Threshold f) Would the Project cause an effect upon, or a need for new or altered maintenance of roads?

The proposed Project would improve public streets along the frontage of the Project site. These improved (i.e., extended, widened) roadways would require routine, intermittent maintenance; but, maintenance of public streets along the Project frontage would not result in any significant impacts to the environment. The Project would contribute traffic to off-site public roadways; however, public roads require periodic maintenance as part of their inherent operational activities, and such maintenance would not result in substantial impacts to the environment. Public roadway maintenance would be funded through the Project Applicant's payment of Development Impact Fees (DIF) and the Project site owners' future payment of property taxes. Maintenance of roadways would not result in any new impacts to the environment beyond that which is already disclosed and mitigated by this Environmental Impact Report, and impacts would therefore be less than significant.

Threshold g) Would the Project cause an effect upon circulation during the project's construction?

As discussed above under Threshold (a) and Threshold (b), circulation facilities in the Project study area would have adequate capacity to accommodate the Project's construction-related traffic while maintaining acceptable LOS. Impacts would be less than significant.

Threshold h) Would the Project result in inadequate emergency access or access to nearby uses?

During the course of the County of Riverside's review of the proposed Project, the County evaluated the Project's design, including but not limited to proposed driveway locations and parking lot/drive aisle configuration, to ensure that adequate access would be provided for emergency vehicles at Project build out. Furthermore, as described above under the response to Threshold (e), the Project would provide adequate emergency access along abutting roadways during temporary construction activities within the public right-of-way. Therefore, the Project would not result in inadequate emergency access and a less-than-significant impact would occur.

The Project site does not provide access to any abutting parcels or nearby uses. Therefore, there is no potential for the Project to result in inadequate access to nearby uses.

Threshold i) Would the Project conflict with adopted policies, plans or programs regarding public transit, bikeways or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities?

The Project is designed to accommodate pedestrians via sidewalks provided along adjacent public roadways. Landscaping is designed to be installed along the Project's perimeter, which would separate the adjacent public roadway rights-of-way (and their associated streetscapes and sidewalks) from the proposed Project's interior, eliminating any conflict between Project operations and the sidewalks along perimeter roadways. Furthermore, all Project driveways would be stop-sign controlled and sight distances at each Project driveway would be reviewed by the County of Riverside at the time improvement plans are submitted to ensure that sight distance meets minimum County safety standards.

According to the County of Riverside General Plan, the Project site abuts a planned community trail along Oleander Avenue and Ellsworth Street ("Decker Road."). The proposed Tentative Parcel Maps for the Building D Site and the Building E Site designate a 14-foot wide trail easement paralleling Oleander Avenue along the Project site's frontage. Similarly, the proposed Building D Site Tentative Parcel Map designates a 14-foot wide trail easement paralleling the east side of Ellsworth Street along the Building D Site's frontage. A 5-foot sidewalk would be provided in an 18-foot wide parkway on the west side of Ellsworth Street along the Building E Site's frontage; a trail easement is not required on the west side of Ellsworth Street. The Project is thus consistent with County plans to provide for community trail segments along Oleander Avenue and Ellsworth Street.

There are no public transit services in the vicinity of the Project site under existing conditions. Accordingly, the Project has no potential to conflict with local public transit service.

The County of Riverside does not have any designated truck routes within County jurisdiction (Urban Crossroads, 2015a, p. 31). However, when Project-related traffic passes through adjacent jurisdictions (like the City of Perris, for example), trucks would be required to use designated truck routes. Mandatory use of designated truck routes would minimize potential real and perceived conflicts

between trucks and passenger vehicles, bicyclists, and pedestrians, and would maximize the safety of the multi-model circulation system.

In summary, the proposed Project has no foreseeable potential to conflict with adopted policies, plans, or programs related to alternative transportation, or otherwise substantially decrease the performance or safety of such facilities. A less-than-significant impact would occur.

4.15.6 CUMULATIVE IMPACT ANALYSIS

The analysis under Threshold (a) disclosed the Project's potential to affect the transportation network on a direct and cumulative basis. As concluded under Threshold (a), the Project would contribute considerable traffic volumes at intersections and roadway segments within the Project study area that are projected to experience significant, cumulative impacts under Opening Year (2017) and/or Horizon Year (2035) traffic conditions. The intersections and roadway segments that would receive cumulatively considerable impacts from the Project are listed below:

Cumulatively Impacted Intersections

- Decker Road / Oleander Avenue (Intersection #4);
- Harvill Avenue / Harley Knox Boulevard (Intersection #8);
- I-215 Southbound Ramps / Harley Knox Boulevard (Intersection #10); and
- I-215 Northbound Ramps / Harley Knox Boulevard (Intersection #11).

The analysis under Threshold (b) evaluated the Project's potential to result in substantial adverse effects to the *Riverside County CMP* roadway network, including *CMP* arterial roadways and freeway facilities. As concluded under Threshold (b), the addition of Project traffic to the existing and planned *CMP* roadway network would result in cumulatively considerable impacts to the following *CMP* intersections:

Cumulatively Impacted CMP Intersections

- I-215 Southbound Ramps / Harley Knox Boulevard (Intersection #10); and
- I-215 Northbound Ramps / Harley Knox Boulevard (Intersection #11).

In addition to the *CMP* intersections listed above, Project would contribute considerable traffic volumes to *CMP* freeway mainline segments, merge/diverge ramp junctions, and ramps within the Project study area that are projected to experience significant, cumulative impacts under Opening Year (2017) and/or Horizon Year (2035) traffic conditions. The *CMP* freeway facilities that would receive cumulatively considerable impacts from the Project are listed below:

Cumulatively Impacted CMP Freeway Mainline Segments

- I-215 Southbound, Eucalyptus Avenue to Alessandro Boulevard (Freeway Segment #8);
- I-215 Southbound, Van Buren Boulevard to Harley Knox Boulevard (Freeway Segment #11);

- I-215 Northbound, Martin Luther King Boulevard to Central Avenue (Freeway Segment #16);
- I-215 Northbound, Box Springs Road to SR-60/I-215 Freeway (Freeway Segment #18);
- I-215 Northbound, SR-60 Freeway to Eucalyptus Avenue (Freeway Segment #19);
- I-215 Northbound, Eucalyptus Avenue to Alessandro Boulevard (Freeway Segment #20); and
- I-215 Northbound, Van Buren Boulevard to Harley Knox Boulevard (Freeway Segment #23).

Cumulatively Impacted CMP Freeway Off-Ramps

- I-215 Southbound Ramps / Harley Knox Boulevard (Ramp #1).

Cumulatively Impacted CMP Freeway Merge/Diverge Junctions

- I-215 Southbound / North of Harley Knox Boulevard (Ramp Junction #1);
- I-215 Southbound / South of Harley Knox Boulevard (Ramp Junction #2);
- I-215 Northbound / North of Harley Knox Boulevard (Ramp Junction #3); and
- I-215 Northbound / South of Harley Knox Boulevard (Ramp Junction #4).

The proposed Project does not have any potential to substantially contribute to cumulative impacts under the topics discussed under Thresholds (c), (d), (e), and (h) because the Project has no potential to result in changes to air traffic patterns; to alter waterborne, rail or air traffic; result in transportation design safety concerns; or adversely affect emergency access.

As presented under Threshold (f), the Project would improve (i.e., extend, widen) public streets along the Project site, which would require maintenance. In addition, Project-related traffic would utilize public streets traveling to-and-from the Project site. However, the Project would pay DIF fees as part of the development process and would pay property tax on an annual basis, a portion of which would be utilized by the County for routine, on-going road maintenance. The Project's payment of DIF fees and annual property taxes would off-set its cumulative contribution to road maintenance. The Project's cumulative contribution to roadway maintenance would be less than significant.

As discussed under Threshold (g), all Project study area circulation facilities would operate at acceptable LOS during Project construction. Accordingly, Project's cumulative contribution of traffic during construction activities would be less than significant.

As presented under Threshold (i), the proposed Project would not conflict with adopted policies or programs regarding public transit, bicycle, or pedestrian facilities and thus has no potential to contribute to a cumulative impact. The Project would have a less-than-significant direct and cumulative impact to adopted policies and programs regarding public transit, bicycle, and pedestrian facilities, as well as a less-than-significant direct and cumulative impact to the performance of such facilities.

4.15.7 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold (a) for the Building D Site and the Building E Site: Significant Cumulatively Considerable Impact. The Project would contribute to LOS deficiencies at numerous Project study area intersections under the Opening Year (2017) plus Cumulative (E+A+P+C) and Horizon Year (2035) traffic scenarios.

Threshold (b) for the Building D Site and the Building E Site: Significant Cumulatively Considerable Impact. The Project would contribute cumulatively considerable traffic volumes at numerous intersections and freeway facilities included within the *Riverside County CMP* roadway network under the Opening Year (2017) plus Cumulative (E+A+P+C) and Horizon Year (2035) traffic scenarios.

Threshold (c) for the Building D Site and the Building E Site: No Impact. There is no potential for the Project to change air traffic patterns or create substantial air traffic safety risks.

Threshold (d) for the Building D Site and the Building E Site: No Impact. There is no potential for the Project to alter waterborne, rail, or air traffic.

Threshold (e) for the Building D Site and the Building E Site: Less-than-Significant Impact. The proposed Project would not substantially increase transportation safety hazards due to design features or incompatible uses.

Threshold (f) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would not cause a significant need for new or altered maintenance of roads.

Threshold (g) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project would not cause a substantial adverse effect upon circulation during the Project's construction phase.

Threshold (h) for the Building D Site and the Building E Site: Less-than-Significant Impact. Adequate emergency access would be provided to the Project site during both short-term construction and long-term operation. The Project would not result in inadequate emergency access to the site or surrounding properties.

Threshold (i) for the Building D Site and the Building E Site: Less-than-Significant Impact. The Project provides for community trail easements along the Project site's frontage with Oleander Avenue and Ellsworth Street, as called for by the planned Riverside County trail network. The Project is designed to minimize potential conflicts with non-vehicular means of transportation. Potential impacts to the performance or safety of transit, bicycle, and pedestrian systems would be less than significant.

4.15.8 MITIGATION

Applicable County Regulations and Design Requirements

The following are applicable regulations and design requirements to which the Project is required to comply. Although these regulations and requirements technically do not meet CEQA's definition for mitigation, they are listed below for information purposes.

- Project construction activities are required to comply with the California Manual on Uniform Traffic Control Devices, which specify that temporary traffic controls shall be provided during construction, such as a flag person, during all phases of construction to facilitate the flow of construction traffic on streets abutting the Project site. To implement this requirement, the requirement to comply with the temporary traffic control plan shall be noted on all grading and building plans and also shall be specified in bid documents issued to prospective construction contractions, including the following notes.

  a. Delivery trucks shall use the most direct route between the construction site and the I-215 Freeway via Harley Knox Boulevard and Harvill Avenue;

  b. Construction traffic during the AM peak hour (7:00am-9:00am) and PM peak hour (4:00pm-6:00pm) shall be minimized. The construction contractor shall assure that construction-related trips (passenger cars and trucks) do not exceed 138 trips in the AM peak hour and 151 trips in the PM peak hour (inbound and outbound combined). The construction contractor shall be responsible for periodic monitoring and shall be required to supply the County of Riverside with monitoring records upon the County's request.

- Prior to issuance of building permits, the Project shall comply with the County of Riverside Development Impact Fee (DIF) program, which requires the Project Applicant to pay a fee to the County (less any fee credits), a portion of which is used to fund local roadway improvements.

- Prior to issuance of building permits, the Project shall comply with the Transportation Uniform Mitigation Fee (TUMF) program as administered by the County of Riverside, which requires the Project Applicant to pay a fee that is used to fund regional transportation improvements.

The following mitigation measures address the Project's cumulative impacts to the local roadway network under E+A+P+C and Horizon Year traffic conditions:

MM 4.15-1 Prior to issuance of building permits, the Project Applicant shall make a fair share monetary contribution to the County of Riverside for improvements to the Decker Road / Oleander Avenue intersection which are not included in the Riverside County

Development Impact Fee (DIF) program or the Transportation Uniform Mitigation Fee (TUMF) program, as listed below:

- Install a traffic signal;
- Install southbound left turn lane;
- Install southbound through lane; and
- Install southbound shared through-right turn lane.

The Project's fair share of the above-listed improvements is 5.5%.

MM 4.15-2 Prior to issuance of building permits, the Project Applicant shall make a fair share monetary contribution to the County of Riverside for improvements to the Harvill Avenue / Harley Knox Boulevard intersection that are not included in the Riverside County Development Impact Fee (DIF) program or the Transportation Uniform Mitigation Fee (TUMF) program, as listed below:

- Modify traffic signal to implement overlap phasing on the northbound right turn lanes; and
- Modify traffic signal to implement overlap phasing on the eastbound right turn lane.

The Project's fair share of the above-listed improvements is 5.0%.

The following mitigation measure addresses Project impacts to the State Highway System:

MM 4.15-3 In the event that Caltrans establishes a fair-share funding program for cumulatively considerable impacts to freeway system segments caused by private development projects that would be applicable to the Project site, prior to the issuance of a building permit for the Project, the Project Applicant shall provide evidence to Riverside County that such fair-share fee has been paid. If Caltrans has not established such a fee prior to building permit issuance, the Project Applicant shall have no further obligation associated with this mitigation measure.

4.15.9 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Threshold (a) for the Building D Site and the Building E Site: Significant and Unavoidable Cumulatively Considerable Impact. County regulatory requirements and Mitigation Measures MM 4.15-1 and MM 4.15-2 require the Project to pay development impact fees and participate in fair share funding programs to address the Project's direct and cumulative impacts to the local roadway network. Under CEQA, a fair-share monetary contribution to a mitigation fund is adequate mitigation if the funds are part of a reasonable plan that the relevant agency is committed to implementing. The ability of mandatory DIF and TUMF payments and fair share payments under MM 4.15-1and MM 4.15-2 to

alleviate the Project's cumulatively considerable impacts under each analysis scenario is discussed below.

Opening Year plus Cumulative Conditions (E+A+P+C)

As shown in Table 4.15-30, *Opening Year plus Cumulative (E+A+P+C) Intersection Analysis – With Mitigation*, recommended improvements would alleviate all projected LOS deficiencies at intersections in the Project study area under E+A+P+C traffic conditions. However, several of the improvements identified in Table 4.15-30 are either funded by an existing mitigation funding program (i.e., TUMF) with no timetable for construction (meaning the necessary improvements may not be in place when the Project becomes operational and starts to contribute traffic to the facilities, applicable to Intersections #10 and #11), or the improvements are not included in any existing program that would ensure timely construction (such as Intersections #4 and #8). . Accordingly, the Project's cumulatively considerable impacts to the intersections listed below would be significant and unavoidable under E+A+P+C traffic conditions. No other feasible mitigation measures for these impacts are available to the Project that would have a proportional nexus to the Project's traffic impact to these facilities.

- Decker Road / Oleander Avenue (Intersection #4) – under jurisdiction of County of Riverside;
- Harvill Avenue / Harley Knox Boulevard (Intersection #8) – under jurisdiction of County of Riverside;
- I-215 Southbound Ramps / Harley Knox Boulevard (Intersection #10) – under jurisdiction of Caltrans and County of Riverside; and
- I-215 Northbound Ramps / Harley Knox Boulevard (Intersection #11) – under jurisdiction of Caltrans and City of Perris.

Horizon Year (2035) Conditions

As shown in Table 4.15-31, *Horizon Year (2035) Intersection Analysis – With Mitigation*, recommended improvements would alleviate all projected LOS deficiencies at intersections in the Project study area under Horizon Year (2035) traffic conditions. However, several of the improvements identified in Table 4.15-31 are either funded by an existing mitigation funding program (i.e., TUMF) with no timetable for construction (meaning the necessary improvements may not be in place when the Project becomes operational and starts to contribute traffic to the facilities, applicable to Intersections #10 and 11), or the improvements are not included in any existing program that would ensure timely construction (such as Intersections #4 and #8). Accordingly, the Project's cumulatively considerable impacts to the intersections listed below would be significant and unavoidable under Horizon Year (2035) traffic conditions. No other feasible mitigation measures for these impacts are available to the Project that would have a proportional nexus to the Project's traffic impact to these facilities.

- Decker Road / Oleander Avenue (Intersection #4) – under jurisdiction of County of Riverside;

Table 4.15-30 Opening Year plus Cumulative (E+A+P+C) Intersection Analysis – With Mitigation

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
8	Harvill Av. / Harley Knox Bl.																	
	- Without Improvements	TS	1	1	2	1	2	0	2	2	1	2	2	1	**104.4**	**183.7**	**F**	**F**
	- With Improvements	TS	1	1	2>	1	2	0	2	2	1	2	2	1	30.4	25.4	C	C
10	I-215 SB Ramps / Harley Knox Bl.																	
	- Without Improvements	TS	0	0	0	0	1	1	0	2	d	1	2	0	**168.2**	**107.3**	**F**	**F**
	- With Improvements	TS	0	0	0	1	1	0	0	2	d	2	2	0	36.8	45.7	D	D
11	I-215 NB Ramps / Harley Knox Bl.																	
	- Without Improvements	TS	0	1	1	0	0	0	1	2	0	0	2	d	36.8	**179.8**	D	**F**
	- With Improvements	TS	0	1	1	0	0	0	2	2	0	0	2	1>>	13.8	30.4	B	C

* **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; >> = Free Right Turn Lane; d = Defacto Right Turn Lane; 1 = Improvement

[2] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] TS = Traffic Signal

Source: (Urban Crossroads, 2015a, Table 7-5)

Table 4.15-31 Horizon Year (2035) Intersection Analysis – With Mitigation

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
4	Decker Rd. / Oleander Av.																	
	- Without Project	TS	0	1	0	0	1	0	1	1	0	1	1	0	26.3	35.6	C	D
	- With Project	TS	0	1	0	0	1	0	1	1	0	1	1	0	31.1	48.4	C	D
8	Harvill Av. / Harley Knox Bl.																	
	- Without Project	TS	1	1	2>	1	2	0	2	2	1>	2	2	1	22.0	45.0	C	D
	- With Project	TS	1	1	2>	1	2	0	2	2	1>	2	2	1	28.8	50.8	C	D
10	I-215 SB Ramps / Harley Knox Bl.																	
	- Without Project	TS	0	0	0	2	1	0	0	2	d	2	2	0	32.5	42.6	C	D
	- With Project	TS	0	0	0	2	1	0	0	2	d	2	2	0	34.7	43.8	C	D
11	I-215 NB Ramps / Harley Knox Bl.																	
	- Without Project	TS	0	1	1	0	0	0	2	2	0	0	2	1>>	17.6	28.2	B	C
	- With Project	TS	0	1	1	0	0	0	2	2	0	0	2	1>>	21.7	38.6	C	D

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.
L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; >> = Free Right Turn Lane; d= Defacto Right Turn Lane; 1 = Improvement

[2] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] TS = Traffic Signal

Source: (Urban Crossroads, 2015a, Table 8-5)

- Harvill Avenue / Harley Knox Boulevard (Intersection #8) – under jurisdiction of County of Riverside;
- I-215 Southbound Ramps / Harley Knox Boulevard (Intersection #10) – under jurisdiction of Caltrans and County of Riverside; and
- I-215 Northbound Ramps / Harley Knox Boulevard (Intersection #11) – under jurisdiction of Caltrans and City of Perris.

Threshold (b) for the Building D Site and the Building E Site: Significant and Unavoidable Cumulatively Considerable Impact. All state highway system facilities in the Project study area are under the jurisdiction of Caltrans. As such, the County of Riverside cannot assure the construction of improvements to state highway facilities that may be needed to improve traffic flow. Furthermore, Caltrans does not have any funding mechanism in place at this time to allow development projects to contribute a fair-share payment to contribute to future improvements and off-set cumulatively considerable traffic impacts. Mitigation Measure MM 4.15-3 requires the Project Applicant to pay such fair-share payment to Caltrans, if a fee program is established by Caltrans prior to the issuance of Project building permits; however, there is no assurance that such a fee program will be established. Also, there is no assurance that planned improvements will be in place prior to the time that the Project begins to contribute traffic to the facilities. Accordingly, the Project's contribution of traffic to the freeway facilities listed below under E+A+P+C and/or Horizon Year (2035) conditions would represent a significant and unavoidable cumulative impact.

Cumulatively Impacted CMP Freeway Mainline Segments

- I-215 Southbound, Eucalyptus Avenue to Alessandro Boulevard (Freeway Segment #8);
- I-215 Southbound, Van Buren Boulevard to Harley Knox Boulevard (Freeway Segment #11);
- I-215 Northbound, Martin Luther King Boulevard to Central Avenue (Freeway Segment #16);
- I-215 Northbound, Box Springs Road to SR-60/I-215 Freeway (Freeway Segment #18);
- I-215 Northbound, SR-60 Freeway to Eucalyptus Avenue (Freeway Segment #19);
- I-215 Northbound, Eucalyptus Avenue to Alessandro Boulevard (Freeway Segment #20); and
- I-215 Northbound, Van Buren Boulevard to Harley Knox Boulevard (Freeway Segment #23).

Cumulatively Impacted CMP Freeway Off-Ramps

- I-215 Southbound Ramps / Harley Knox Boulevard (Ramp #1).

Cumulatively Impacted CMP Freeway Merge/Diverge Junctions

- I-215 Southbound / North of Harley Knox Boulevard (Ramp Junction #1);
- I-215 Southbound / South of Harley Knox Boulevard (Ramp Junction #2);
- I-215 Northbound / North of Harley Knox Boulevard (Ramp Junction #3); and

- I-215 Northbound / South of Harley Knox Boulevard (Ramp Junction #4).

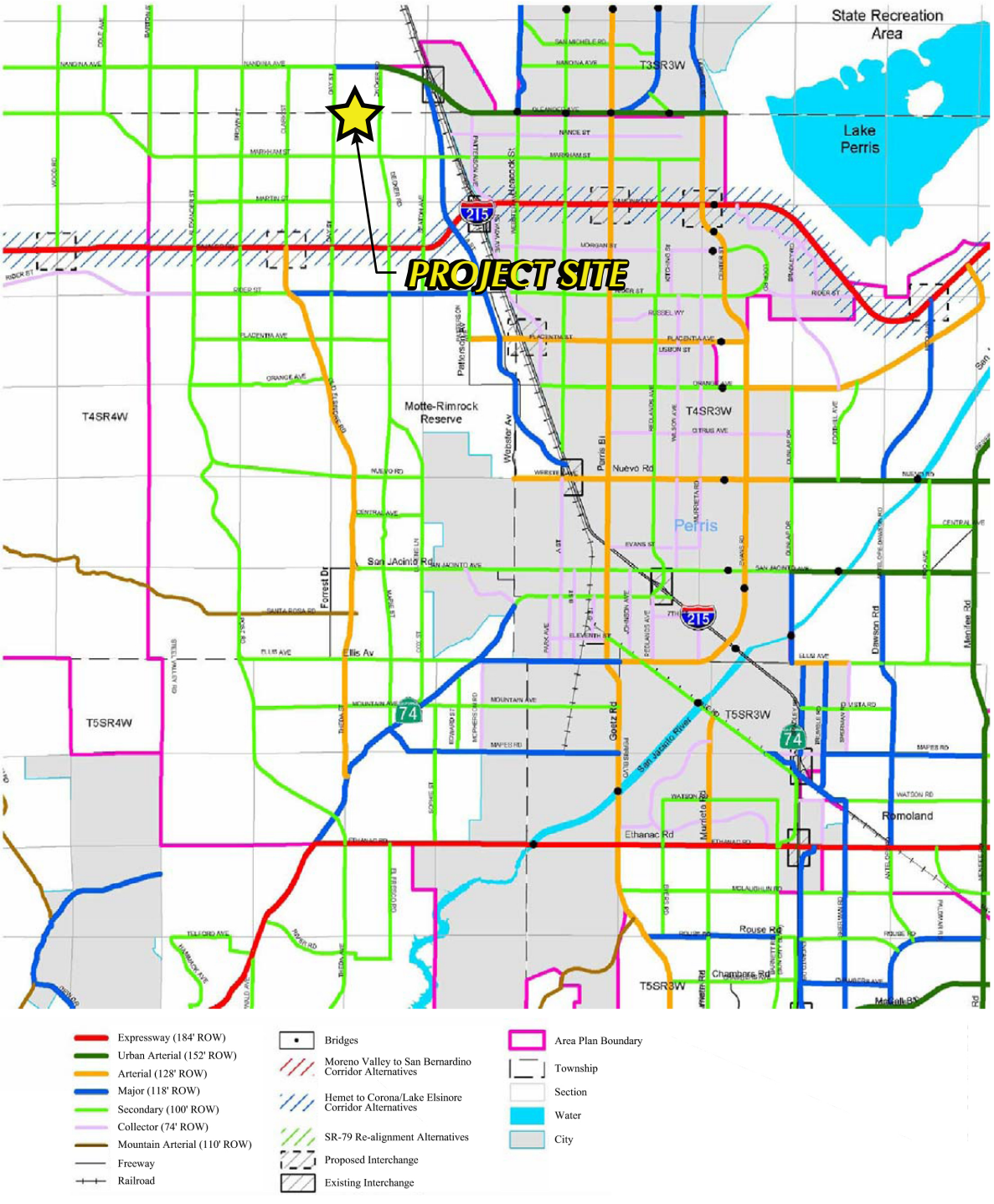
As shown in Table 4.15-30 and Table 4.15-31, Intersections #10 and #11 would operate at acceptable LOS under E+A+P+C and Horizon Year (2035) conditions with the addition of recommended improvements. The improvements recommended for Intersections #10 and #11 are programmed – but not yet fully funded – by TUMF. The Project would contribute to the TUMF program as a standard regulatory requirement. Furthermore, portions of Intersections #10 and #11 are located outside of the jurisdiction of the County of Riverside (portions of Intersection #10 are under the jurisdiction of Caltrans and portions of Intersection #11 are under the jurisdiction of the City of Perris), meaning the County cannot assure the necessary improvements would not be in place when the Project becomes operational and starts to contribute traffic to the facilities. Because there is no timetable for constructing the TUMF-programmed improvements at Intersections #10 and #11 and because the County cannot assure the construction of the recommended improvements by their time of need, the Project's cumulative impact at these intersections is determined to be significant and unavoidable under E+A+P+C and Horizon Year (2035) conditions.

Source(s): Urban Crossroads (06-08-2015)

Figure 4.15-1

NOT TO SCALE

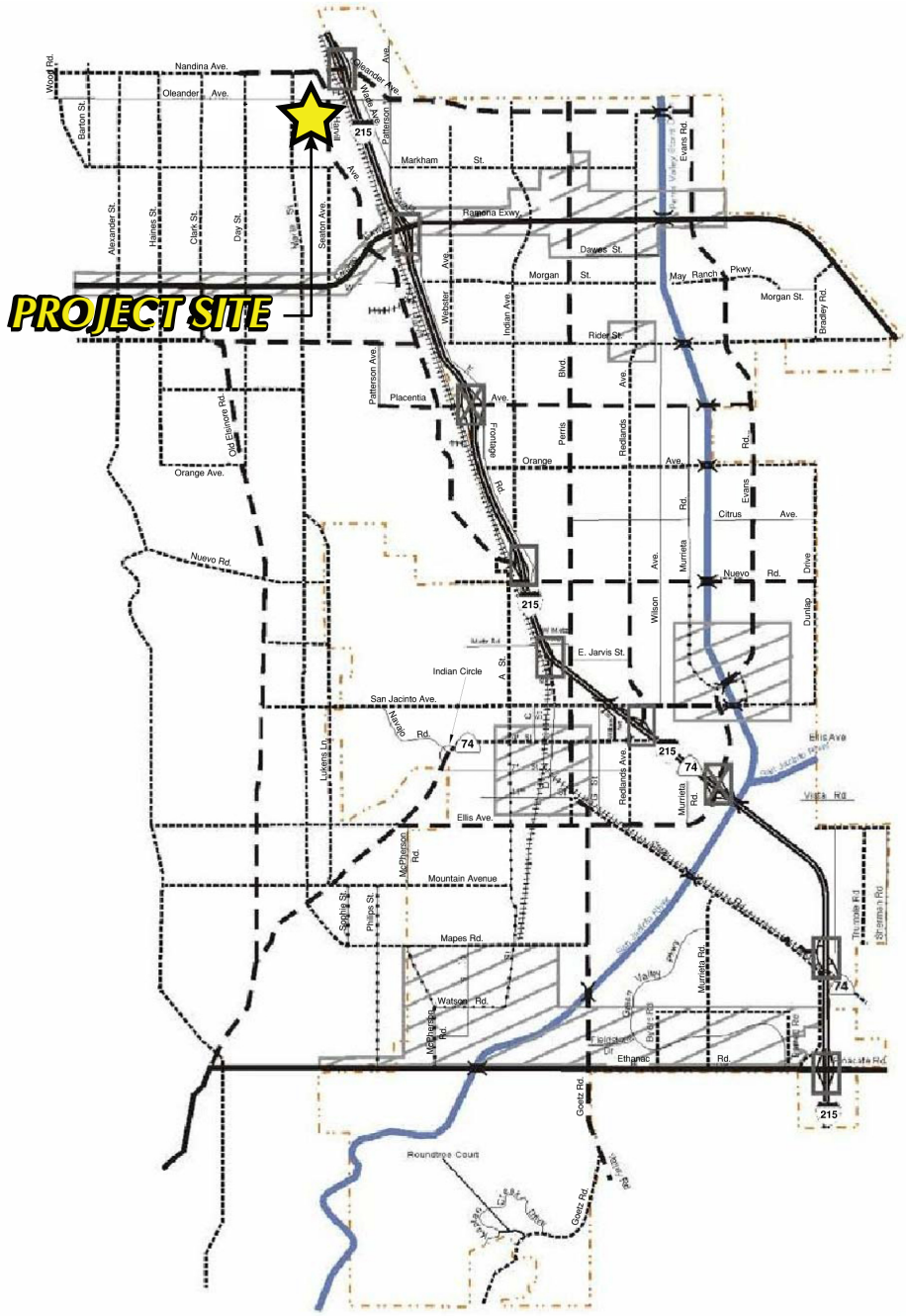
STUDY AREA INTERSECTION LOCATIONS



Source(s): Urban Crossroads (06-08-2015)

NOT TO SCALE

Figure 4.15-2
COUNTY OF RIVERSIDE GENERAL PLAN CIRCULATION ELEMENT

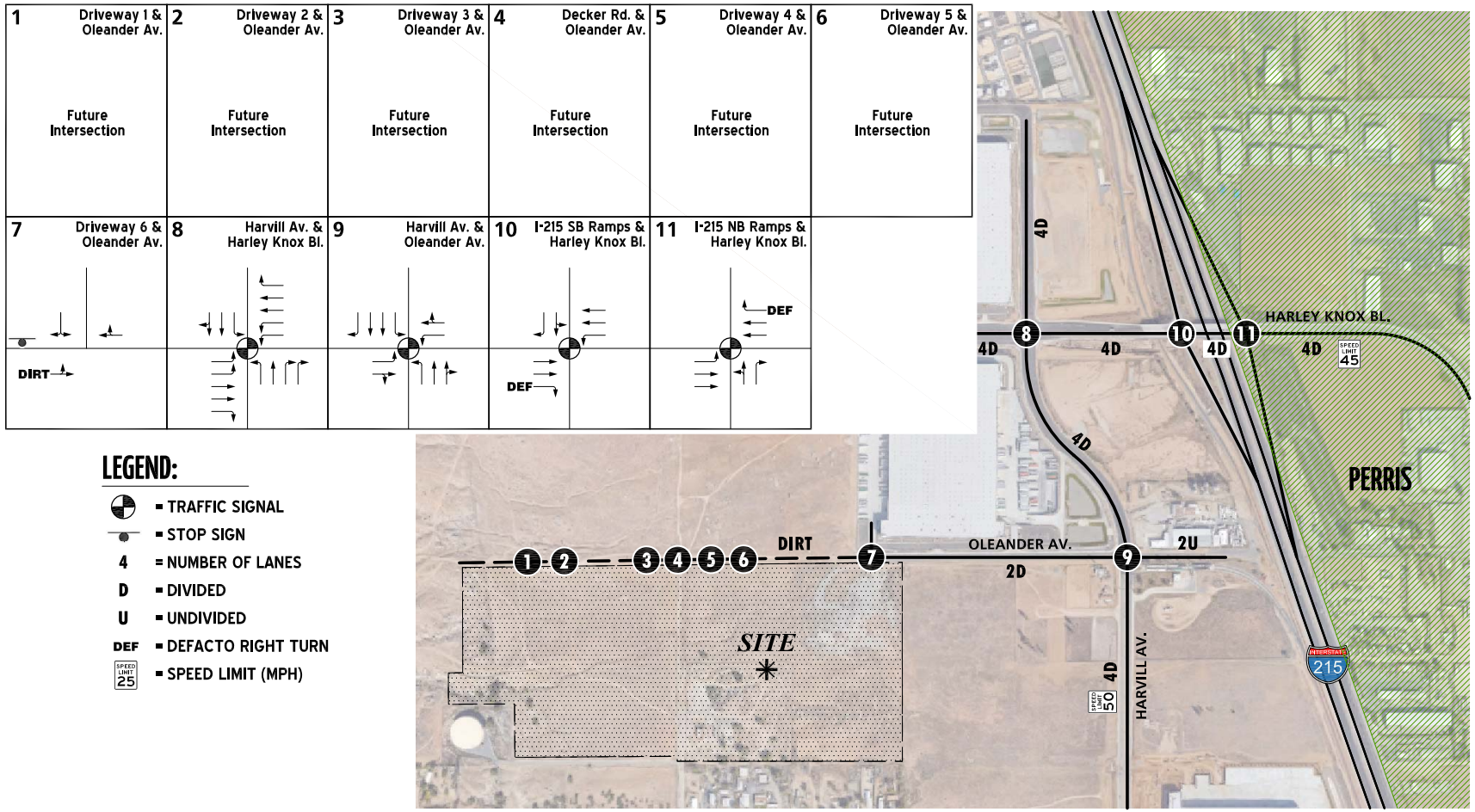


Source(s): Urban Crossroads (06-08-2015)

Figure 4.15-3

NOT TO SCALE

CITY OF PERRIS GENERAL PLAN CIRCULATION PLAN

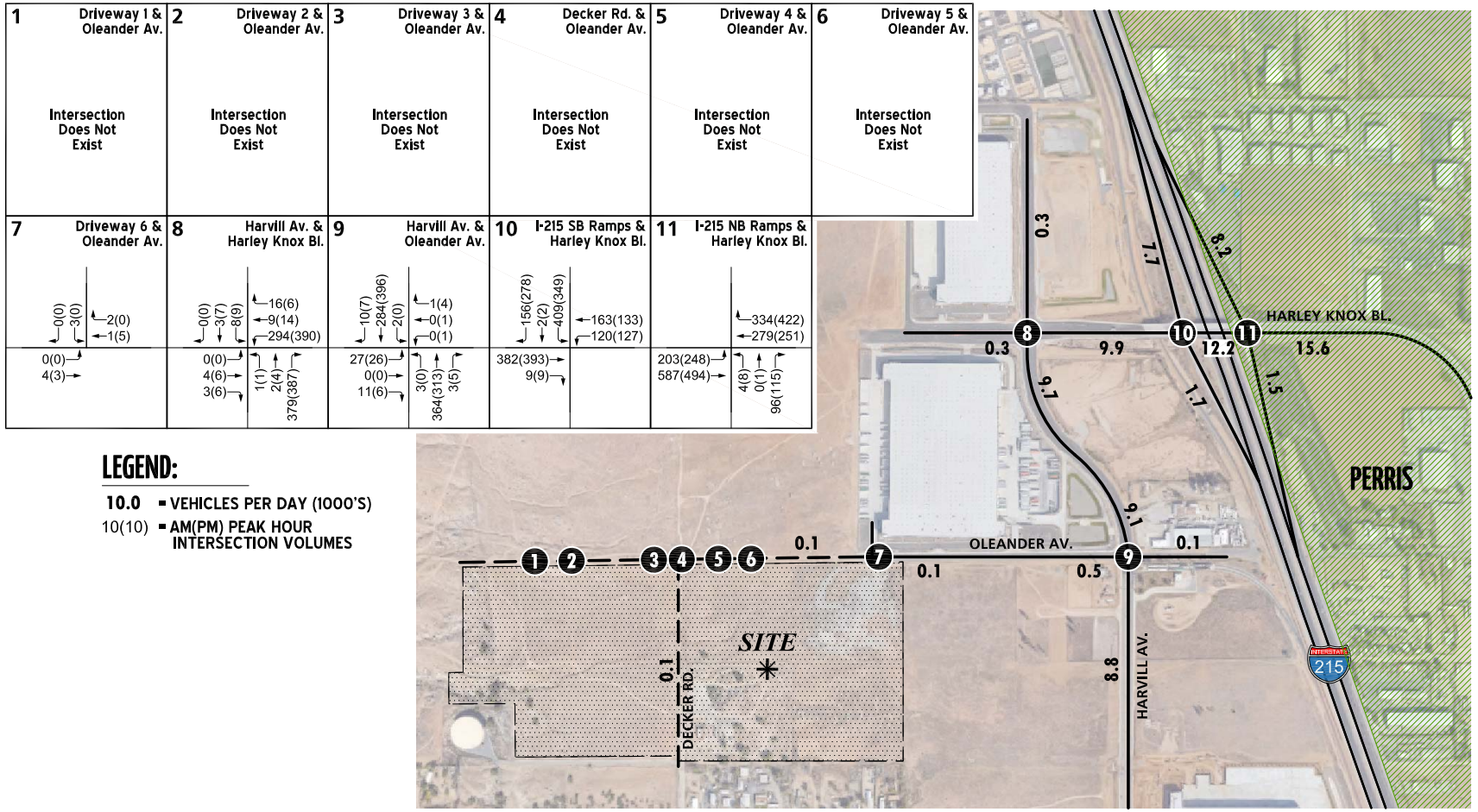


Source(s): Urban Crossroads (06-08-2015)

Figure 4.15-4

NOT TO SCALE

EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS

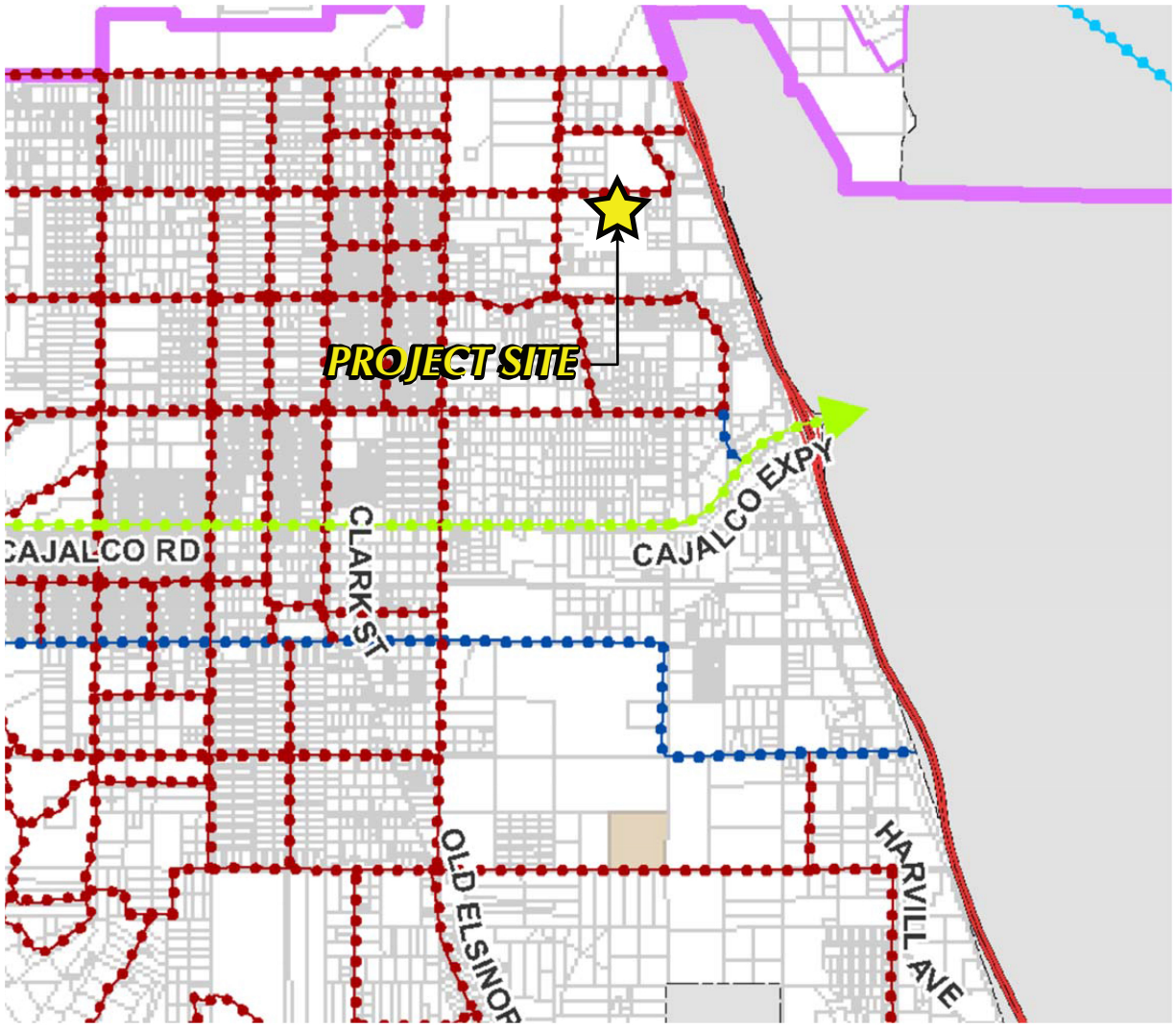


Source(s): Urban Crossroads (06-08-2015)

Figure 4.15-5

NOT TO SCALE

EXISTING AVERAGE DAILY TRAFFIC (ADT)

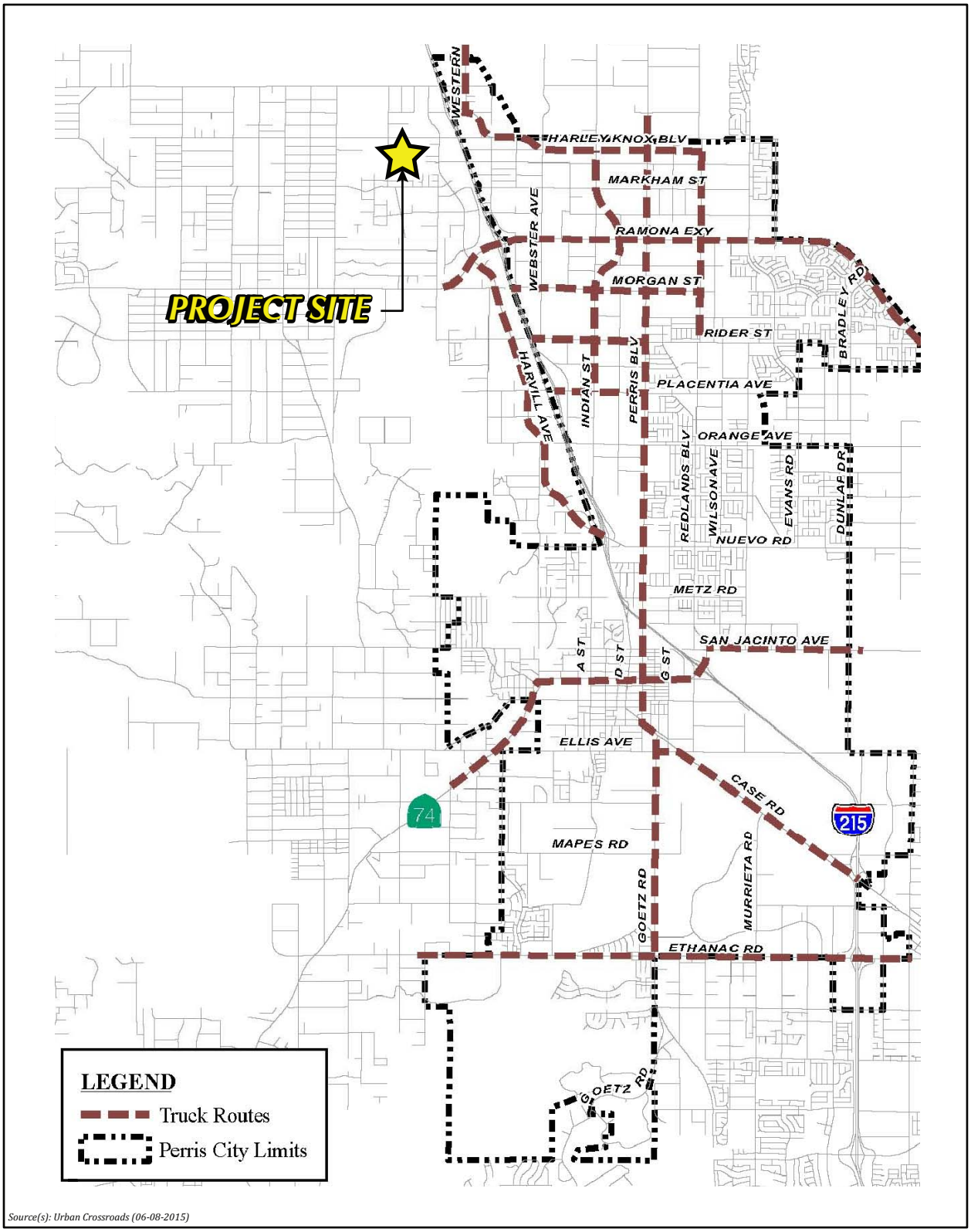


Source(s): Urban Crossroads (06-08-2015)

Figure 4.15-6

NOT TO SCALE

RIVERSIDE COUNTY TRAILS AND BIKEWAY SYSTEM



Source(s): Urban Crossroads (06-08-2015)

Figure 4.15-7

NOT TO SCALE

CITY OF PERRIS TRUCK ROUTES

LEGEND:

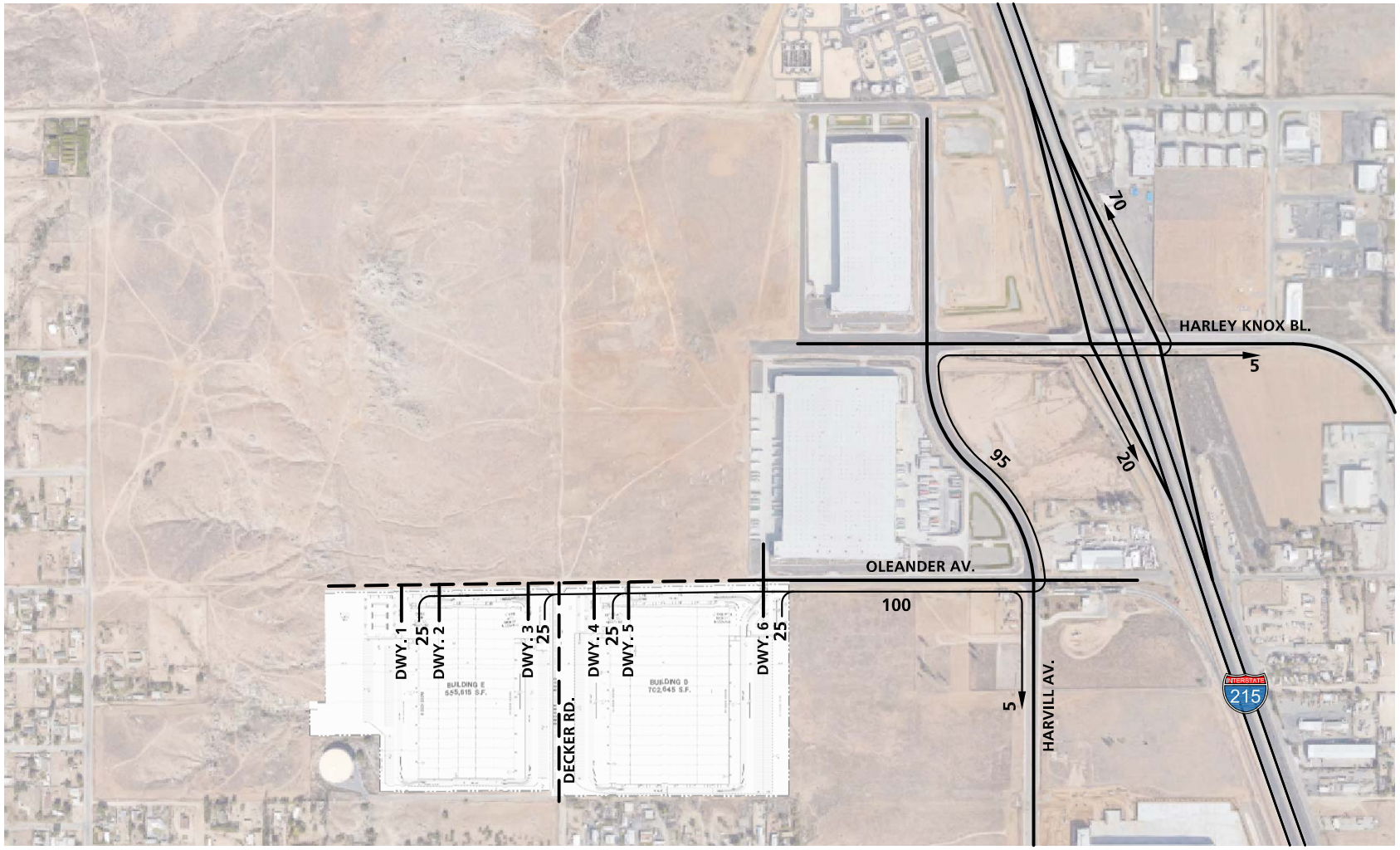
10 = PERCENT TO/FROM PROJECT

Source(s): Urban Crossroads (06-08-2015)

Figure 4.15-8

NOT TO SCALE

PROJECT PASSENGER CARS TRIP DISTRIBUTION

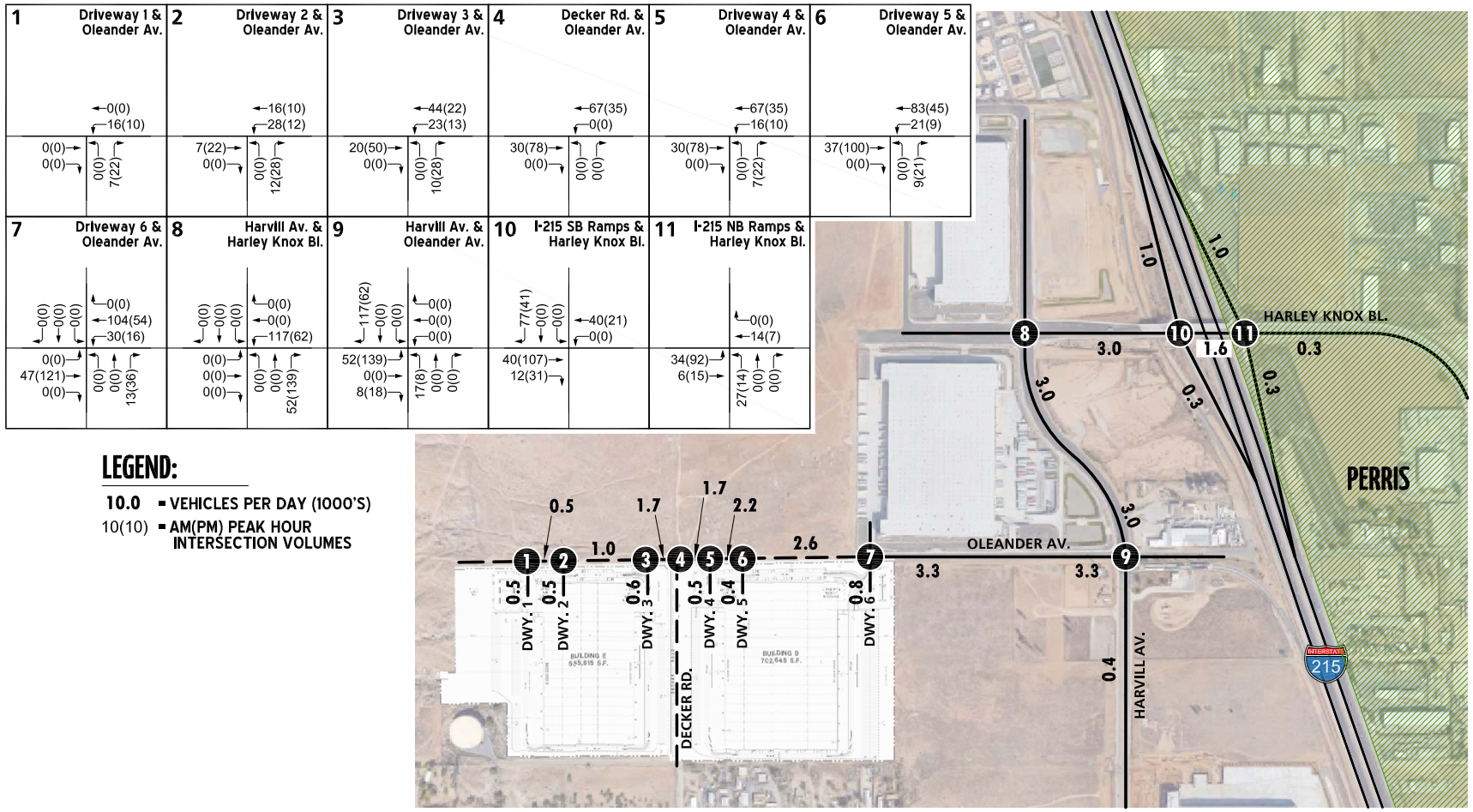


Source(s): Urban Crossroads (06-08-2015)

Figure 4.15-9

NOT TO SCALE

PROJECT TRUCKS TRIP DISTRIBUTION

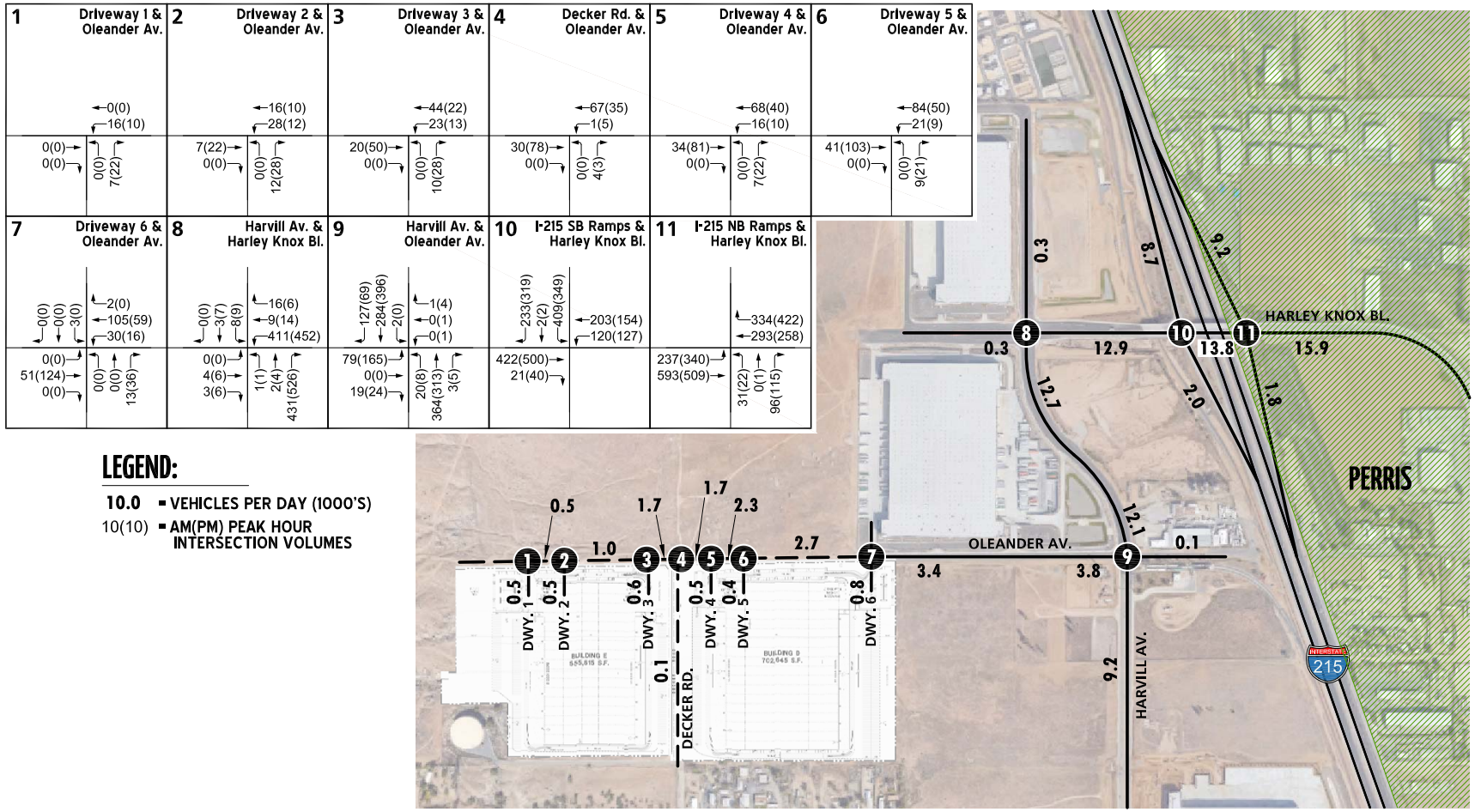


Source(s): Urban Crossroads (06-08-2015)

Figure 4.15-10

NOT TO SCALE

PROJECT TRAFFIC VOLUMES

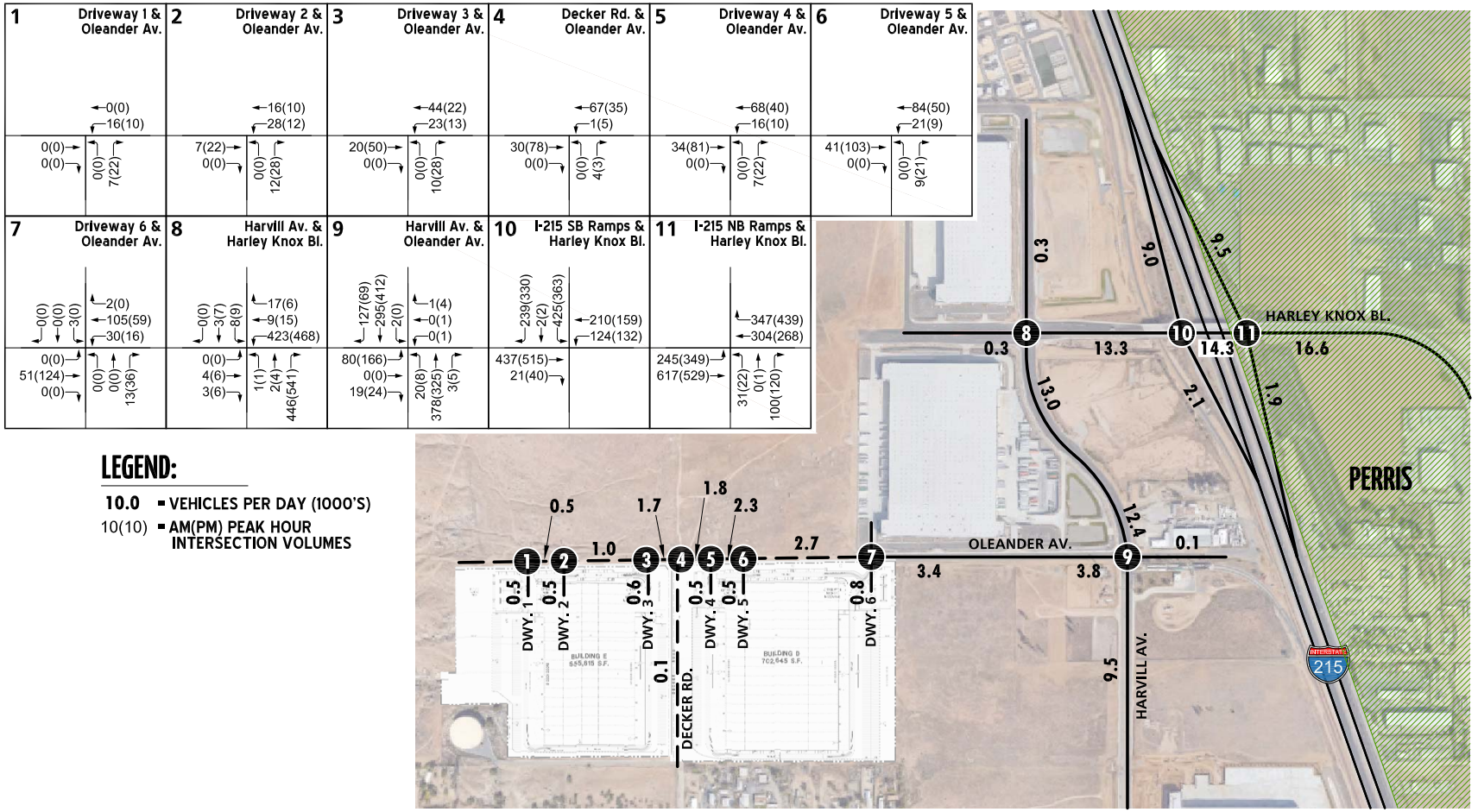


Source(s): Urban Crossroads (06-08-2015)

Figure 4.15-11

NOT TO SCALE

EXISTING PLUS PROJECT (E+P) TRAFFIC VOLUMES

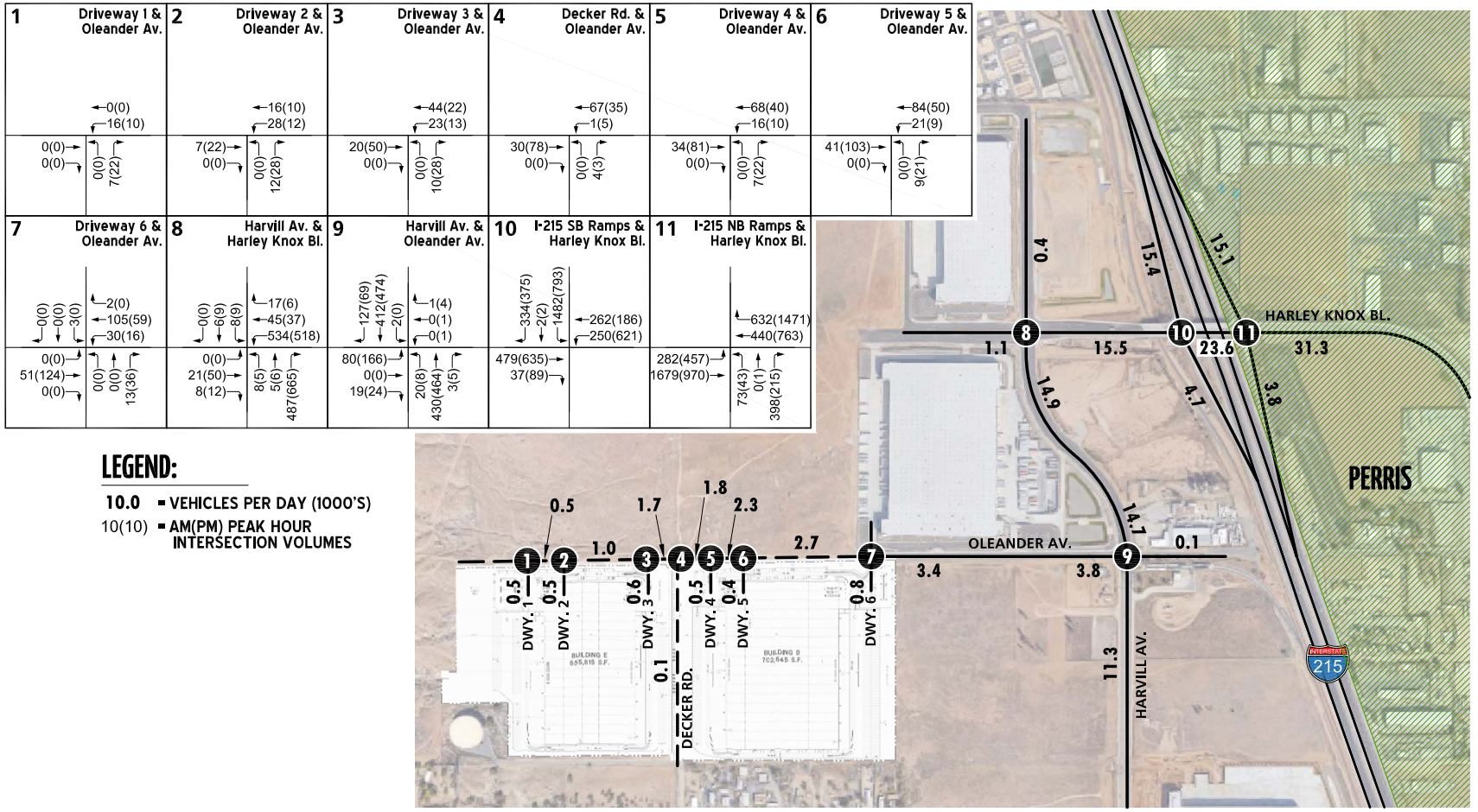


Source(s): Urban Crossroads (06-08-2015)

Figure 4.15-12

NOT TO SCALE

OPENING YEAR (2017) TRAFFIC VOLUMES (E+A+P)

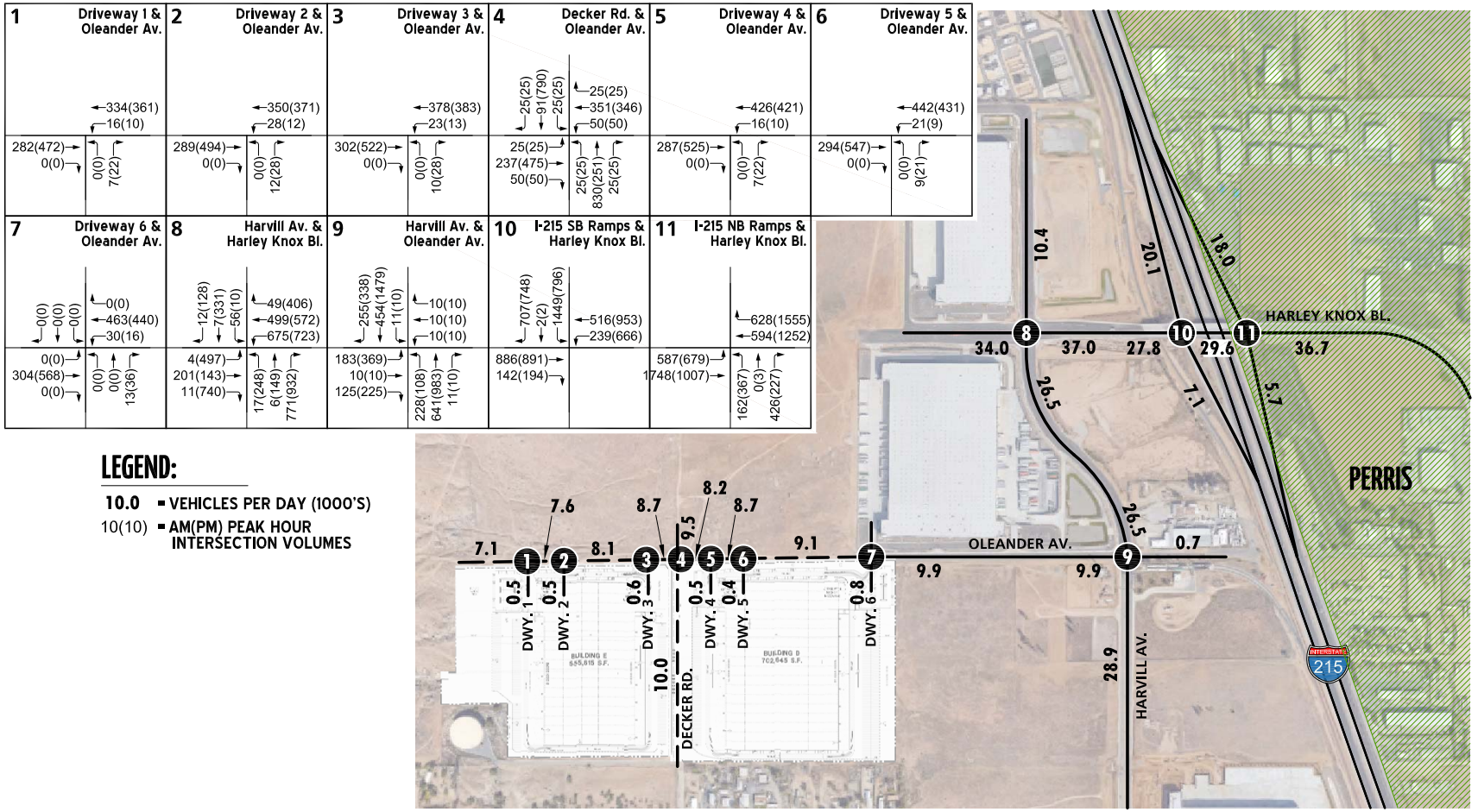


Source(s): Urban Crossroads (06-08-2015)

Figure 4.15-13

NOT TO SCALE

OPENING YEAR (2017) PLUS CUMULATIVE TRAFFIC VOLUMES (E+A+P+C)



Source(s): Urban Crossroads (06-08-2015)

Figure 4.15-14

NOT TO SCALE

HORIZON YEAR (2035) TRAFFIC VOLUMES

4.16 UTILITIES AND SERVICE SYSTEMS

This subsection addresses the topics of water service and supply; wastewater collection and treatment; storm water conveyance facilities; solid waste collection and disposal; and utility connections. The information concerning water supplies and the Project's estimated water demand is based in part on information contained in the *Water Supply Assessment for the Knox Business Park*, dated October 21, 2015 and prepared by the Eastern Municipal Water District (EMWD, 2015). A copy of the Water Supply Assessment (WSA) is provided as *Technical Appendix K* to this EIR. Please note that *Technical Appendix K* was prepared prior to the Project Applicant's decision to reduce the size of the Building E Site and the size of its proposed building to the current configurations described in EIR Section 3.0, *Project Description*. Therefore, the utility demand calculations presented herein are based on a larger sized Building E than is currently proposed. Because the water demand calculations in *Technical Appendix K* overstates the Project's demand, it was not necssary to update the WSA to show a lesser Project impact for purposes of anlaysis under CEQA. Thus, all Project service demand impacts stated herein overstate the actual expected impact.

The analysis contained in this Subsection also is based in part on information obtained from the Project's preliminary hydrology reports prepared for Buildings D and E, which are contained in EIR *Technical Appendices H1 and H2*, respectively (DEA, 2017) (DEA, 2017b). This Subsection also relies upon the Eastern Municipal Water District (EMWD) 2010 Urban Water Management Plan (UWMP) (EMWD, 2011), and the California Department of Resources Recycling and Recovery website (CalRecycle, 2015).

4.16.1 EXISTING CONDITIONS

A. *Water Service*

The Project site is located in the service area of the EMWD for potable water service. The EMWD is a retail water supplier that serves an approximately 555 square mile area that encompasses the Cities of Hemet, Menifee, Moreno Valley, Murrieta, Perris, San Jacinto, and Temecula, as well as unincorporated portions of western Riverside County, including the communities of Homeland, Lakeview, Nuevo, Quail Valley, Romoland, Valle Vista, and Winchester (EMWD, 2011, p. 9).

The Project site is largely undeveloped under existing conditions, with the exception of the southwestern portion of the Building D Site which contains a mobile home and a concrete pad that is used for the storage of construction equipment. Under existing conditions, the Project site has only a nominal demand for water resources.

EMWD Urban Water Management Plan Overview

Water Code § 1062(a) of the California Urban Water Management Planning Act requires every urban water supplier to prepare and adopt an urban water management plan and conduct updates every five years. In addition to meeting the requirements of this Act, urban water management plans are to be used to support water supply assessments and verifications required by California Senate Bills 610 and

221 of 2001. These bills require that water supply information be provided to counties and cities for projects of a certain size prior to their approval.

EMWD prepared a UWMP dated June 2011 that provides for the long-range planning efforts of water purveyance within its district. The EMWD UWMP is herein incorporated by reference and is available for review at the EMWD offices at 2270 Trumble Road, Perris, CA 92570. The UWMP includes a water system analysis; identifies improvements to correct existing deficiencies and serve projected future growth; and identifies contingency measures to ensure the EMWD's continued ability to provide potable water service during multiple-year drought conditions. As concluded by the UWMP, the EMWD anticipates that it will be able to meet projected demand for water within its service boundaries until at least the year 2035 in all types of climate situations, including normal, dry, and multiple consecutive dry weather years (EMWD, 2011, Tables 3.2 through 3.4).

Water Shortage Contingency Planning

At the time the NOP was issued for this EIR (2015), California was experiencing severe drought conditions. In response, the State Water Resources Control Board adopted emergency state-wide urban water conservation regulations that became effective in July 2014 and remained in place until April 2015. Subsequently, the California Governor issued a State of Emergency and Continued State of Emergency in 2014 in response to the persistent state-wide drought. On April 1, 2015, California Governor Jerry Brown issued Executive Order B-29-15 which orders the State Water Resources Control Board (SWRCB) to impose mandatory water use restrictions to achieve a 25 percent reduction in potable urban water usage through February 18, 2016. It addresses facilitating funding for projects designed to increase local water supplies and improve water supply reliability. It also orders more frequent reporting and modifications to the State's Model Water Efficient Landscape Ordinance; mandates Agricultural water suppliers to prepare their Agricultural Water Management Plans by specific dates; and orders the State to coordinate their water conservation related goals with other state departments like the California Department of Fish and Wildlife, Forestry and Fire Protection, and the Energy Commission. In addition, Executive Order B-29-15 requires that the SWRCB impose restrictions that require commercial, industrial, and institutional properties to implement water efficiency measures to reduce potable water usage to meet this mandated water usage reduction target.

A Water Shortage Contingency Plan (WSCP) also is included in the UWMP, which would be implemented by the EMWD in cases of future water deficiencies caused by limitations on supply or the EMWD's delivery system. The WSCP applies regulations and restrictions on the delivery and consumption of potable outdoor water use during water shortages. The WSCP applies specific reduction requirements and restrictions to each of four separate groups of customer types: single-family residential, multi-family residential, and landscape customers; commercial, industrial, and institutional (CII); agricultural; and wholesale (EMWD, 2011, p. 63).

Over 90 percent of EMWD's customers are either single-family residential, multi-family residential, or landscape customers. These customers are subject to a budget-based tiered rate. There are four tiers in EMWDs rate structure; the first two tiers apply to indoor and outdoor use, respectively; the third tier

is applied to water use up to 50 percent above the tier one and two budgets; and tier four is applied to any water use in excess of tier three. In times of water shortage, penalties are added to the highest tier and tiers two and three are reduced as shortage levels increase. Under the most extreme shortage conditions, no outdoor water use is allowed (EMWD, 2011, p. 63).

CII and agricultural customers must reduce demand during periods of shortage. CII customers face event driven penalties and could face fines if found violating water use restrictions. Agricultural customers are required to reduce demand over historical use and face penalties for use over allocation. Wholesale customers are allocated water using the formula and methodology based on MWD's Water Supply Allocation Plan (EMWD, 2011, p. 63).

In addition, EMWD expects that the region's unprecedented water shortages will be addressed through the principles of the Water Surplus and Drought Management Plan (WSDMP) as described in the Metropolitan Water District's (MWD) 2010 Regional Urban Water Management Plan (RUWMP). The WSDMP identifies the expected sequence of resource management actions that MWD will execute during surpluses and shortages to minimize the probability of severe shortages and reduce the possibility of extreme shortages and shortage allocations. In February 2008, MWD's Board adopted a Water Supply Allocation Plan (WSAP), which is intended to create an equitable needs-based allocation during drought conditions. The WSAP includes a formula that is intended to balance the impacts of a shortage at the retail level while maintaining equity on the wholesale level for shortages of Metropolitan supplies of up to 50 percent. The formula takes into account growth, local investments, changes in supply conditions, and the demand hardening aspects of non-potable recycled water use and the implementation of conservation savings programs (MWD, 2010, pp. 2-21 and 2-22).

Additionally, the Water Conservation Act of 2009, Senate Bill 7 x-7, set a requirement for water agencies to reduce their per capita water use by the year 2020. The overall goal is to reach a state-wide reduction of per capita urban water use of 20 percent by December 31, 2020, with an intermediate 10 percent reduction by December 31, 2015. Demand reduction can be achieved through both conservation and the use of recycled water as a potable demand offset. EMWD committed to reducing potable water demand to meet the goals of SB 7x-7 in two ways: using recycled water to offset potable water demand and reducing demand for water through conservation. EMWD identified three methods for conserving water: 1) a budget based tiered rate, 2) requirements for water efficiency in new construction, and 3) an active conservation program. Water use reduction will be focused on outdoor demand reduction by all customer types. Table 4.16-1, *Estimated Water Efficiency Savings (2005-2035)*, summarizes water savings by type (EMWD, 2015, p. 12).

Table 4.16-1 Estimated Water Efficiency Savings (2005-2035)

Saving Type	2005	2010	2015	2020	2025	2030	2035
Recycled Water Potable Offset	3,601	4,041	5,000	6,300	11,500	13,900	14,300
Tiered Rate	0	8,700	8,700	8,700	8,700	8,700	8,700
New Construction	0	200	2,000	4,100	6,100	8,000	9,600
Active Conservation	1,500	3,400	6,500	9,500	10,700	11,700	12,600
Total	**5,101**	**16,341**	**22,200**	**28,600**	**37,000**	**42,300**	**45,200**

Note: Recycled water will be used to offset potable demand through the expansion of the existing recycled water system.
(EMWD, 2015, Table 5)

Water Supply Sources

EMWD has four sources of water supply: imported water purchased from MWD, local potable groundwater, local desalted groundwater, and recycled water. Imported water accounts for approximately 67 percent, local potable groundwater is approximately 12 percent, desalted groundwater is three percent, and recycled water is 19 percent of supply. Table 4.16-2, *Water Supply (2005-2010)*, which incorporates information from the 2010 UWMP, lists the historic supply quantities by source (EMWD, 2015, p. 4).

Table 4.16-2 Water Supply (2005-2010)

Type	Source	2010	2011	2012	2013	2014
Imported	Metropolitan Water District	75,000	72,500	75,900	78,200	82,100
Imported – Locally Treated	Metropolitan Water District	16,600	17,000	20,300	18,200	21,600
Groundwater	West San Jacinto Management Area	15,800	17,400	15,500	18,800	12,700
Desalination	West San Jacinto Management Area	5,800	5,700	5,700	5,000	6,800
Recycled Water	EMWD Regional Water Reclamation Facilities	28,200	31,000	36,800	34,500	38,800
Total		**141,400**	**143,700**	**154,200**	**154,700**	**162,000**

Note: Values shown are acre-feet per year (AFY).
(EMWD, 2015, Table 2)

It is anticipated that the majority of the water demands within EMWD's jurisdiction caused by future development will be met through additional water imports from MWD, as summarized in Table 4.16-3, *EMWD Existing Water Supply Resources – Average Year Hydrology (2015-2035).* Imported sources will be supplemented by an increase in desalination of brackish groundwater, recycled water use, and water use efficiency. In Metropolitan Water District's (MWD) 2010 Regional Urban Water

Management Plan (RUWMP), MWD analyzed the reliability of water delivery through the State Water Project (SWP) and the Colorado River Aqueduct (CRA), and concluded that with the storage and transfer programs developed by MWD, MWD will have a reliable source of water to serve its member agencies' needs through 2030 during normal, historic single-dry, and historic multiple-dry years within a 20-year projection (EMWD, 2015, p. 6).

EMWD also has identified several projects that would supplement imported supplies, retrofit potable water landscape customers, improve indirect potable recharge, and identify additional water use efficiency measures. These projects will offset the demand of existing water and free up resources for new development. Table 4.16-4, *EMWD Potential Additional Water Supply Sources (2015-2035)*, provides a summary of additional potential local supplies. These projects are in the planning stage of development and costs and implementation timelines are subject to change. New development will be required to help fund new water supply sources. The extent of additional funding will be determined by the EMWD and may take the form of a new component of connection fees or a separate charge. Details about funding for individual projects are developed in conjunction with the required plans of service (EMWD, 2015, p. 6).

Table 4.16-3 EMWD Existing Water Supply Resources – Average Year Hydrology (2015-2035)

	2015	2020	2025	2030	2035
Metropolitan Water District	149,300	170,700	190,700	210,000	226,200
Recycled Water	43,900	50,000	53,900	54,900	55,300
Groundwater	13,200	13,200	13,200	13,200	13,200
Existing Desalter	7,500	7,500	7,500	7,500	7,500
Total Existing Supplies	**213,900**	**241,400**	**265,300**	**285,600**	**302,200**

Note: Values shown are acre-feet per year (AFY). Data is based on an average of 2004-2009 conditions.
(EMWD, 2015, Table 3)

Table 4.16-4 EMWD Potential Additional Water Supply Sources (2015-2035)

	2015	2020	2025	2030	2035
Additional Recycled Water	6,100	13,500	16,400	22,200	28,200
Desalination	4,500	4,500	4,500	4,500	4,500
Planned Additional Conservation	0	0	1,300	4,300	6,400
Water Transfers/Exchanges	0	0	0	0	0
Total	**10,600**	**18,000**	**22,200**	**31,000**	**39,100**

(EMWD, 2015, Table 4)

Water Demand Sources

EMWD's primary retail customers can be divided into residential, commercial, industrial, institutional, and landscape sectors. Although the residential section is by far EMWD's largest customer segment, each market segment plays a role in the growth and development of EMWD's service area. Commercial demands account for approximately five percent of EMWD's retail demand; institutional uses account for four percent of retail demand; agriculture uses comprise four percent of EMWD's potable water market; and industrial uses account for less than one percent of retail demand (EMWD, 2011, pp. 21-22). Table 4.16-5, *EMWD Total Actual and Projected Water Demand (2005-2035)*, summarizes the EMWD's actual and projected water demand between 2005 and 2035.

Table 4.16-5 EMWD Total Actual and Projected Water Demand (2005-2035)

	Actual		Projected				
	2005	2010	2015	2020	2025	2030	2035
Retail Potable Water Sales	84,900	77,700	113,800	120,700	136,100	150,300	162,200
Water Sales to Other Agencies	29,400	27,100	47,600	61,600	65,000	69,000	72,400
Other Water Uses/Losses	47,300	49,900	52,500	59,100	64,200	66,300	67,600
Total	**161,600**	**154,700**	**213,900**	**241,400**	**265,300**	**285,600**	**302,200**

Note: Values shown are AFY.
(EMWD, 2015, Table 9)

Existing Water Infrastructure

Under existing conditions, a 12-inch water line runs parallel to the Project site's southern boundary west of Ellsworth Street, which continues to the south within Ellsworth Street. There are no potable water connections on site under existing conditions.

B. Wastewater Service and Treatment

The EMWD provides wastewater service and treatment within the Project area. Wastewater flows from the Project area are conveyed to the Perris Valley Regional Water Reclamation Facility (PVRWRF). The PVRWRF is the largest of four operating plants within EMWD's service area. The plant produces tertiary-treated water and can store more than two billion gallons of recycled water for use by surrounding agricultural customers. The plant receives sewage from a 120-square-mile area surrounding Perris, Menifee, Romoland, Homeland, Winchester, and beyond. The facility is located on approximately 300 acres just west of I-215 and south of Case Road (EMWD, 2014).

In March 2014, EMWD completed the most recent expansion of the PVRWRF. Table 4.16-6, *PVRWRF Existing and Projected Sewer Flows and Capacity*, summarizes the current flows, along with an estimate of current and ultimate capacity. With an ultimate capacity of 100 million gallons per day (mgd), the facility is poised to meet the current and future demands of the region as well as help to meet the increasing demand for recycled water throughout EMWD's service area. Before the expansion, its capacity was 14 mgd and typical daily flows were 13.8 mgd. The most recent expansion

allows EMWD to meet the projected demands of anticipated development in the region, while also meeting more stringent environmental requirements for wastewater treatment and recycled water quality. The PVWRF also includes two new 300-kilowatt fuel cells powered by methane gas from three new anaerobic sludge digesters. Those methane-gas powered fuel cells will provide roughly 30 percent of the power needed to run the facility, substantially reducing EMWD's reliance on the region's power grid and stabilizing future energy costs (EMWD, 2014).

Table 4.16-6 PVRWRF Existing and Projected Sewer Flows and Capacity

Typcial daily flows:	13.8
Previous capacity:	14.0
Current capacity:	22.0
Ultimate capacity:	100.0

Note: Values shown are million gallons per day (mgd).
(EMWD, 2014)

Under existing conditions, the Project site is largely undeveloped, with the exception of the southwestern portion of the Building D Site which contains a mobile home and a concrete pad that is used for the storage of construction equipment. The Project site has only a nominal demand for wastewater service and treatment under existing conditions. Existing wastewater facilities in the Project site's vicinity include an 8-inch sewer line within the alignment of Oleander Road, near the northeast corner of the site. This sewer line conveys sewer flows to the east, and ultimately discharges to the PVRWRF.

C. *Stormwater Conveyance Facilities*

Under existing conditions, the Project site is mostly undeveloped, with the exception of the southwestern portion of the Building D Site which contains a mobile home and a concrete pad that is used for the storage of construction equipment. As previously depicted on EIR Figures 4.9-2 and 4.9-3, under existing conditions the Project site exhibits a largely natural drainage pattern. The majority of the site's drainage sheet flows and discharges towards Oleander Avenue near the northeast corner of the site. Most of the remaining drainage sheet flows and discharges along the southern boundary just west of the Building E Site, with a small portion of the drainage discharging along the southern boundary in the central portion of the Building D Site. Flows from the Project site are conveyed easterly to existing drainage facilities, and ultimately discharge into the Perris Storm Drain. Runoff is then conveyed towards the San Jacinto River, to Lake Elsinore, and ultimately to the Santa Ana River. Under existing conditions, the only drainage improvement is an existing 60-inch-diameter storm drain line near the Building D Site's northeastern corner.

D. *Solid Waste Collection and Disposal*

The Riverside County Waste Management Department (RCWMD) is responsible for the efficient and effective landfill disposal of non-hazardous waste. To accomplish this, the RCWMD operates six active landfills and administers a contract agreement for waste disposal at the private El Sobrante

Landfill. The RCWMD also oversees several transfer station leases, as well as a number of recycling and other special waste diversion programs (Riverside County, 2014, p. 4.17-36).

All of the active landfills currently located in Riverside County are rated as Class III landfills according to Title 27 of the California Code of Regulations (CCR). Such landfills only accept nonhazardous, municipal solid wastes. Franchise solid waste collection companies are granted permits to collect commercial and residential waste throughout unincorporated Riverside County under Riverside County's general operating authority. These companies are regulated by the Riverside County Department of Environmental Health (RCDEH). In addition, County landfills accept waste collected in incorporated cities. Within these cities, solid wastes are either collected by the city as a municipal service or are collected by private firms pursuant to a franchise agreement with the city. As part of its long-range planning and management activities, the RCWMD also ensures that Riverside County has a minimum of 15 years of capacity, at any time, for future landfill disposal (Riverside County, 2014, p. 4.17-36).

All of Riverside County's sanitary landfills accept normal solid wastes, household refuse, and yard trimmings as well as furniture, household appliances, televisions and computers, and other electronic wastes. Household hazardous wastes (i.e., cleaners, pesticides, pool chemicals, paints, aerosol cans, etc.), explosives or ammunition, untreated medical or infectious wastes (including sharps) and/or items containing asbestos (such as some floor tile and roofing materials) are not allowed to be disposed of in any of Riverside County's sanitary landfills (Riverside County, 2014, p. 4.17-36 and -37).

The County of Riverside also operates separate collection facilities for household hazardous wastes (HHW) and offers free one- and two-day HHW collection events throughout the year to provide residents with an environmentally safe way to properly dispose of or recycle their HHW. As defined by the State Health and Safety Code, HHW are hazardous wastes generated incidentally to the owning and maintaining of a residence. They do not include hazardous wastes generated by commercial, industrial, or medical uses, even if such use occurs in a residence. (Riverside County, 2014, p. 4.17-37).

In addition to the HHW facilities, there are three regional "antifreeze, batteries, oil, and paint" (ABOP) facilities within Riverside County. The facilities accept ABOP, which includes oil filters and paint, but only latex. They do not accept any other types of HHW. For automotive oil and filters, there are also Certified Used Oil Collection Centers throughout California that accept used vehicle oils of five gallons or less, often for free (Riverside County, 2014, p. 4.17-37).

Hazardous waste that inadvertently enters Riverside County landfills is handled through a Load Check Program, which consists of random waste load inspections, temporary storage of any discovered/recovered hazardous waste at the Lamb Canyon's central accumulation facility, and removal of the accumulated hazardous waste by a licensed hazardous waste hauler for recycling and disposal (Riverside County, 2014, p. 4.17-37).

As noted above, the County operates six active landfills and administers a contract agreement for waste disposal at the private El Sobrante Landfill. Two of these landfills accept solid waste from the Project site's vicinity, as described below (Riverside County, 2014, p. 4.17-41):

- **Badlands Landfill**: The local service area for the Badlands Landfill is generally considered to include the City of Moreno Valley and surrounding cities and unincorporated communities. The landfill accepts residual waste from the Robert A. Nelson Transfer Station/Materials Recovery Facility, which primarily serves the City of Riverside. As a regional disposal facility, the landfill is also permitted to receive waste from the cities and unincorporated communities of the Coachella Valley in the eastern portion of Riverside County. This landfill has a permitted daily capacity of 4,000 tons per day (tpd), and has an estimated closure date of 2024 (Riverside County, 2014, p. 4.17-41 and Table 4.17-L).

- **El Sobrante Landfill**: The local service areas for the El Sobrante Landfill typically include cities/communities within southwestern Riverside County, as well as multiple jurisdictions within the counties of Los Angeles, Orange, San Bernardino, and San Diego. Located near the center of the highly populated western third of Riverside County, according to Waste Management, Inc., the landfill's operator, it processes approximately 43 percent of Riverside County's annual waste. This landfill has a permitted daily capacity of 5,000 tpd, and an estimated closure date of 2045 (Riverside County, 2014, p. 4.17-41 and Table 4.17-L).

E. Applicable Environmental Regulations

1. Federal Regulations

Resource Conservation and Recovery Act (RCRA)

The Resource Conservation and Recovery Act (RCRA) was enacted in 1976 and is the principal federal law in the United States governing the disposal of solid waste and hazardous waste. The U.S. Environmental Protection Agency (US EPA) oversees waste management regulation pursuant to Title 40 of the Code of Federal Regulations. Under RCRA, however, states are authorized to carry out many of the functions of the federal law through their own hazardous waste programs and laws, as long as they are at least as stringent (or more so) than the federal regulations. Thus, CalRecycle manages the State of California's solid waste and hazardous materials programs pursuant to US EPA approval.

Federal Safe Drinking Water Act

The Safe Drinking Water Act (SDWA, Health and Safety Code, §§ 116350–116405) was passed in 1974 and is intended to protect public health by regulating the nation's public drinking water supply. The Federal SDWA authorizes the US EPA to set national standards for drinking water to protect against contaminants. Amendments in 1996 expanded the focus of the SDWA from primarily water treatment to enhanced source water protection, operator training, funding for water system improvements, and public information as important components of protecting drinking water supplies. The SWDA applies to every public water system in the United States and sets the enforceable maximum contaminant levels (MCLs) for drinking water supplies.

2. State Regulations

California Safe Drinking Water Act

California enacted its own Safe Drinking Water Act and granted primary enforcement responsibility to the California Department of Health Services (DHS). Title 22 of the California Code of Regulations (CCR) (Division 4, Chapter 15, "Domestic Water Quality and Monitoring Regulations") established DHS authority and provides drinking water quality and monitoring requirements, which are equal to or more stringent than federal standards.

California Water Code Section 10910 (SB 610)

Pursuant to Senate Bill 610 (SB 610), California Water Code Section 10910 requires cities and counties to request that water purveyors prepare water supply assessments for certain projects (as defined in Water Code Section 10912) subject to CEQA. In accordance with Section 10912 (a)(5) of the California Water Code, a proposed industrial, manufacturing, processing plant, or industrial park planned to employ more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area must have a water supply assessment (WSA). The WSA is required to identify if projected supply for the next 20 years (based on normal, single dry, and multiple dry water years) would meet the water demand projected for a proposed Project plus the water purveyor's other commitments to deliver water.

Senate Bill 221 (SB 221)

SB 221 requires land use planning agencies, such as Riverside County, to include (as a condition in any tentative map that includes a subdivision involving more than 500 dwelling units) a requirement to obtain written verification that sufficient water supplies are available for the subdivision from the applicable public water system, or, where there is no existing water supplier, from a consultant directed by the County. SB 221 also addresses the issue of land use and water supply, but at a different point in the planning process than does SB 610. SB 221 requires a city or county to deny approval of a tentative or parcel map if the city or county finds that the project does not have a sufficient, reliable water supply as defined in the bill.

Urban Water Management Planning Act

The Urban Water Management Planning Act (UWMP Act) (California Water Code, Division 6, Part 2.6, Section 10610 et seq.) was enacted in 1983. The UWMP Act applies to municipal water suppliers that serve more than 3,000 customers or provide more than 3,000 acre-feet per year (AFY) of water. The UWMP Act requires these suppliers to update their Urban Water Management Plan (UWMP) every five years to demonstrate an appropriate level of reliability in supplying anticipated short-term and long-term water demands during normal, dry, and multiple dry years.

Water Conservation in Landscaping Act:

The Water Conservation in Landscaping Act of 2006 (Assembly Bill 1881) required cities and counties, including charter cities and charter counties, to adopt landscape water conservation

ordinances by January 1, 2010. The Department of Water Resources (DWR) prepared an updated Model Water Efficient Landscape Ordinance, as contained in California Code of Regulations Title 23, Division 2, Chapter 2.7. Cities and counties had the option to adopt DWR's ordinance or to develop their own. If a local agency had not adopted its own ordinance on or before January 1, 2010, the DWR ordinance became applicable to the jurisdiction of the local agency.

DWR's ordinance identifies the landscape documentation that needs to be submitted to the local agency, including a completed Water Efficient Landscape Worksheet that estimates total water use and compares it to the Maximum Applied Water Allowance (MAWA) based on the annual reference evapotranspiration value for the project area. The MAWA is considered the water budget and should not be exceeded by the estimated water use. Standards for soil management, landscape design, irrigation design and efficiency, grading design, irrigation scheduling, maintenance, audit and survey of water use, recycled water, storm water management, public education, and wastewater prevention are provided to reduce irrigation water demand.

Water Conservation Act of 2009 (Senate Bill 7)

Senate Bill 7 (SB 7) was enacted in November 2009, requiring all water suppliers to increase water use efficiency. The bill also requires, among other things, that the DWR, in consultation with other state agencies, develop a single standardized water use reporting form, which would be used by both urban and agricultural water agencies. The legislation sets an overall goal of reducing per capita urban water use by 20 percent by December 31, 2020. The State was required to make incremental progress towards this goal by reducing per capita water use by at least 10 percent by December 31, 2015. Each urban retail water supplier also was required to develop water use targets and an interim water use target by July 1, 2011. Additionally, SB 7 requires agricultural water suppliers to adopt a pricing structure for water customers based at least in part on the quantity delivered. Effective 2013, agricultural water suppliers who do not meet the water management planning requirements established by this bill became ineligible for state water grants or loans. Urban retail water suppliers are required to meet the water conservation requirements of SB 7 by 2016 or the water supplier will not be eligible for state water grants or loans (DWR, 2015b).

Executive Order B-29-15

On April 1, 2015, Governor Jerry Brown signed Executive Order B-29-15, which directs the State Water Resources Control Board to implement mandatory water reductions in cities and towns across California through February 18, 2016 to reduce water usage by 25 percent. This savings amounts to approximately 1.5 million acre-feet of water over the following nine months. To save more water the Executive Order directed the following actions: (Office of the Governor, 2015):

- Replace 50 million square feet of lawns throughout the state with drought tolerant landscaping in partnership with local governments;
- Direct the creation of a temporary, state-wide consumer rebate program to replace old appliances with more water and energy efficient models;

- Require campuses, golf courses, cemeteries, and other large landscapes to make significant cuts in water use;
- Prohibit new homes and developments from irrigating with potable water unless water-efficient drip irrigation systems are used, and ban watering of ornamental grass on public street medians; and
- Prohibit irrigation with potable water outside of newly constructed homes and buildings that is not delivered by drip or microspray systems.

The SWRCB regulations identified the EMWD as an urban water agency that would be required to reduce overall water usage by 25 percent. As mentioned above, the provisions of the Executive Order extend through February 18, 2016, and the proposed Project is not expected to complete construction until November 2017. Therefore, it cannot be determined if the water restrictions will be in place when the Project becomes operational. Furthermore, the legality of the SWRCB mandated cutbacks has been challenged in court, and the challenge is still pending.

Sustainable Groundwater Management Act (SGMA)

The SGMA is comprised of three pieces of legislation (AB 1739, SB 1313, and SB 1168) which were signed on September 16, 2014, and requires local agencies to adopt customized groundwater sustainability plans tailored to regional economic and environmental needs. This package of legislation recognizes the need for local management of groundwater basins to ensure sustainable water supplies. The act defines sustainable groundwater management as "the management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results" (California, 2015). The timeline for the implementation of the statutes included in the SGMA are as follows:

- By 2017, local groundwater sustainability agencies must be identified.
- By 2020, overdrafted basins must be covered by a groundwater sustainability plan. Other high and medium priority basins not in overdraft must have plans by 2022.
- By 2040, each high and medium priority basin must achieve sustainability, though this can be extended by 10 years for good cause.

Based on the prioritization standards for the State's Groundwater Basins, the Project site is located in Basin Number 8-5, which is classified as "high priority" based on DWR standards (DWR, 2014). According to this priority level, the basin will be required to create a "Groundwater Sustainability Agency" and then adopt a groundwater sustainability plan to effectively manage groundwater supplies at the local level.

Water Efficient Landscape Ordinance

On July 15, 2015, the California Water Commission approved the updated State Model Water Efficient Landscape Ordinance to comply with the Governor's Executive Order B-29-15. Its goal is to increase water efficiency standards for new and retrofitted landscapes through more efficient irrigation systems,

greywater usage, on-site storm water capture, and by limiting the portion of landscapes that can be covered in turf. It also required reporting on the implementation and enforcement of local ordinances, with required reports due by December 31, 2015 (DWR, 2015b).

CalRecycle

CalRecycle is the term the State of California uses for its Department of Resources Recycling and Recovery, formerly known as the California Integrated Waste Management Board (CIWMB). This state agency performs a variety of regulatory functions pursuant to CCR Title 27 and other regulations. Among other things, CalRecycle set minimum standards for the handling and disposal of solid waste designed to protect public health and safety, as well as the environment (CCR § 20050, for example). It is also the lead agency for implementing the State of California municipal solid waste program deemed adequate by the US EPA for compliance with RCRA (Riverside County, 2014, pp. 4.17-43 and 4.17-44).

Mandatory Diversion and Recycling (AB 341)

Approved in 2011, this act amended the California Public Resources Code (Section 42649 et seq.) to address solid waste diversion (i.e., recycling) targets to decrease the amount of wastes going to landfills and thus extend their usable lives. AB 341 requires cities and counties, including Riverside County, to include source reduction, recycling, and composting in their integrated waste management plans (IWMP). In addition, under AB 341 counties were required to "divert 50% of all solid waste from landfill disposal or transformation [e.g., incineration] by January 1, 2000, through source reduction, recycling and composting activities." By 2020, the target rises to "not less than 75% of solid waste." The RCWMD is responsible for implementing AB 341 in the unincorporated portions of Riverside County. The annual progress report on Riverside County's status towards attaining AB 341 requirements is also prepared by the RCWMD. In addition, AB 341 also requires the County of Riverside (i.e., the Riverside County Waste Management Department [RCWMD]) to implement a commercial solid waste recycling program meeting specific elements outlined in the law. It sets new commercial solid waste recycling requirements. And, it also required "commercial or public entities" that "generate more than 4 cubic yards of commercial solid waste per week" and "multifamily residential dwelling[s] of five units or more" to source separate recyclable materials and arrange for recycling services starting July 1, 2012 (Riverside County, 2014, p. 4.17-44).

California Integrated Waste Management Act (AB 939)

The California Integrated Waste Management Act (AB 939) required local jurisdictions to meet solid waste diversion goals of 25 percent by 1995 and 50 percent by 2000. The California Integrated Waste Management Board (CIWMB) determines this diversion by looking at the base-year solid waste generation (waste normally disposed of into landfills) to determine the amount of solid waste diverted. To help increase diversion rates, each jurisdiction is required to maintain and enforce an Integrated Waste Management Plan that looks at recycling programs, purchasing of recycled products, and waste minimization (Riverside County, 2014, p. 4.17-44).

California Solid Waste and Recycling Access Act of 1991

Subsequent to enactment of the California Integrated Waste Management Act, additional legislation was passed to assist local jurisdictions in accomplishing the goals of AB 939. The California Solid Waste Reuse and Recycling Access Act of 1991 (Public Resources Code Section 42900–42911) directs the CIWMB to draft a "model ordinance" governing adequate areas for collection and loading of recyclable materials in development projects. If by September 1, 1994, a local agency did not adopt its own ordinance based on the CIWMB model, the CIWMB model took effect for that local agency. The County's municipal code incorporates requirements for the provision of areas for the collection and loading of recyclables in compliance with the California Solid Waste Reuse and Recycling Access Act of 1991.

Title 24 Energy Efficiency Standards

California's Energy Efficiency Standards for Residential and Non-residential Buildings was established in 1978 in response to a mandate to reduce the state's energy consumption. These standards are promulgated under California Code of Regulations Title 24, Part 6 and are commonly referred to as "Title 24." The Title 24 standards are periodically updated to reflect new or improved energy efficiency technologies and methods. The 2013 Standards went into effect on July 1, 2014, and supersede earlier versions of the standards. A new development project is required to incorporate the most recent Title 24 standards in effect at the time the building permit application is submitted.

Title 24 Green Building Standards

Part 11 of the State's CBSC contains the state-wide Green Building Standards Code, which was adopted to enhance the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practice in the following categories: planning and design; energy efficiency; water efficiency and conservation; material conservation and resource efficiency (including solid waste reduction and diversion from landfills (recycling); and environmental quality. The provisions of the Green Building Standards are enforced in the County of Riverside as part of the County's building permit issuance process (BSC, 2013).

3. Local Regulations

Riverside County Water-Efficient Landscape Requirements (Ordinance No. 859)

Riverside County Ordinance No. 859 establishes the County's water-efficient landscape requirements. Ordinance No. 859 applies to all rehabilitated landscapes associated with commercial and industrial uses requiring a discretionary permit and/or approval, and certain types of residential developments. The ordinance requires the submittal of detailed landscape documents that include water budget calculations to demonstrate compliance with the landscape and irrigation efficiency measures specified in the ordinance.

Countywide Integrated Waste Management Plan

The Countywide Integrated Waste Management Plan (CIWMP) was prepared in accordance with the California Integrated Waste Management Act of 1989, Chapter 1095 (AB 939), and is updated every five years. The CIWMP outlines and codifies the goals, policies, and programs the County of Riverside and its cities are implementing to create an integrated and cost-effective waste management system that complies with the provisions of AB 939 and its diversion mandates. The CIWMP's components include the Countywide Summary Plan, the Countywide Siting Element, the Source Reduction and Recycling Element, the Household Hazardous Waste Element, and Non-Disposal Facility Element. Each of these Elements addresses plans for both Riverside County and each of its cities. The Riverside Countywide Integrated Waste Management Plan was approved by the California Integrated Waste Management Board in September of 1996 and has subsequently been updated at five-year intervals as required by law (Riverside County, 2014, p. 4.17-45).

The RCWMD is specifically charged with the responsibility of: 1) implementing programs that adhere to the goals, policies, and objectives outlined in Riverside County's Source Reduction and Recycling Element (SRRE) to ensure that unincorporated Riverside County achieves 50 percent diversion of solid waste from landfill disposal; 2) implementing programs that adhere to the goals, policies, and objectives outlined in Riverside County's Household Hazardous Waste Element to reduce the amount of HHW disposed within landfills; 3) continuing to meet the solid waste disposal needs of all Riverside County residents into the future; and 4) maintaining and updating the CIWMP and reporting to the CIWMB on Riverside County's progress in complying with AB 939 (Riverside County, 2014, p. 4.17-45).

The RCWMD prepares an Annual Report each August that is submitted to CalRecycle. The Annual Report serves as a basis for determining if the Siting Element and Summary Plan should be revised to include additional disposal capacity, reflect new or changed local and regional solid waste management issues, or include new or changed goals and objectives. The Annual Report is reviewed by the State of California to determine if the County of Riverside is making progress toward meeting its goals and objectives. The CIWMP is also subject to a five-year review to assess if revision is necessary and to determine that Riverside County's waste management practices remain consistent with the hierarchy of waste management practices (Riverside County, 2014, p. 4.17-45).

RCWMD Design Guidelines for Refuse and Recyclables Collection and Loading Areas

Part of the RCMWD Planning Section's review of land-use/development projects is to ensure adequate space is provided for collection of recyclables and that solid waste disposal capacity of Riverside County facilities is not overburdened. As such, most new development projects are required to provide refuse/recycling collection and loading areas, as well as submit a Waste Recycling Plan. Specifically, the County of Riverside requires recycling storage/collection areas provided within new commercial, industrial, and multi-family developments. The Design Guidelines are intended to assist project proponents in identifying space and other design considerations for refuse and recyclables collection and loading areas per the California Solid Waste Reuse and Recycling Act of 1991. Compliance with the Guidelines is necessary for obtaining RCWMD clearance in order to obtain a building permit within

unincorporated Riverside County. In addition, projects that have the potential to generate construction or demolition (C&D) waste are required to complete a County of Riverside Waste Recycling Plan (WRP) to identify the estimated quantity and location of recycling for C&D waste resulting from construction and demolition activities. As part of the WRP, a waste recycling report is required upon completion of project construction demonstrating the actual quantity of C&D waste recycled (Riverside County, 2014, p. 4.17-45).

4.16.2 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to utilities and service systems if the Project or any Project-related component would:

a) Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects;

b) Result in a determination by the local water agency that it has insufficient water supplies available to serve the project from existing entitlements and resources, resulting in the need for new or expanded entitlements needed;

c) Require or result in the construction of new wastewater treatment facilities, including septic systems, or expansion of existing facilities, the construction of which would cause significant environmental effects;

d) Result in a determination by the wastewater treatment provider that serves or may service the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments;

e) Be served by a landfill that does not have the permitted capacity to accommodate the project's solid waste disposal needs;

f) Conflict with federal, state, and local statutes and regulations related to solid wastes including the CIWMP (County Integrated Waste Management Plan); or

g) Result in impacts to one or more of the following facilities, requiring or resulting in the construction of new facilities or the expansion of existing facilities, the construction of which could cause significant environmental effects:

i. Electricity
ii. Natural gas
iii. Communications systems
iv. Storm water drainage
v. Street lighting
vi. Maintenance of public facilities, including roads
vii. Other governmental services

4.16.3 IMPACT ANALYSIS

Threshold a)	***Would the proposed Project require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?***
Threshold b)	***Would the proposed Project result in a determination by the local water agency that it has insufficient water supplies available to serve the project from existing entitlements and resources, resulting in the need for new or expanded entitlements?***

Water demand associated with the proposed Project would consist of interior plumbing devices (e.g., sinks, toilets, faucets) as well as outdoor landscape irrigation. Water service to the proposed Project would be provided by the EMWD via connections to 12-inch-diameter water lines installed beneath the paved Oleander Avenue segment that abuts the northeastern corner of the Building D Site and beneath an unnamed, private EMWD water tank access road that abuts the southern Project site boundary. As shown previously on EIR Figures 3-18 and 3-19, the Project would install a 12-inch-diameter water line that connects to the existing water line that abuts the southern Project site boundary, travels north beneath Ellsworth Street to Oleander Avenue, travels west beneath Oleander Avenue between Ellsworth Street and the western boundary of the Building E Site, and travels east beneath Oleander Avenue from Ellsworth Street to approximately 1,055 feet east of the Oleander Avenue/Ellsworth Street intersection, where it connects to the existing water line that abuts the northeastern corner of the Building D Site. Buildings D and E would connect to the proposed water line beneath Oleander Avenue. A loop system of 10-inch pipelines for fire hydrants also would traverse the Project site and connect to existing and proposed water lines within Oleander Road and Ellsworth Street. The installation of these lines has the potential to cause environmental effects associated with short-term air pollutant emissions, noise, and traffic movement disruptions and is an inherent part of the Project's construction process. Environmental impacts associated with the construction of water lines as needed to serve the Project are evaluated throughout this EIR. Where significant impacts are identified, feasible and enforceable mitigation measures are imposed on the Project to reduce impacts to the maximum practical effect. There are no unique impacts associated with the installation of water lines to serve the Project, and impacts would be less than significant.

The EMWD prepared a Water Supply Assessment (WSA) for the proposed Project (based on a larger sized Building E than is currently proposed), the results of which are included in EIR *Technical Appendix K*. As summarized in Table 4.16-7, *Project Water Demand*, the EMWD estimates that the Project's two business park warehouse buildings would result in a demand for approximately 38,890 gallons per day (gpd) of potable water, which translates into an annual demand of approximately 44 AFY. The EMWD indicates that the water demand for the proposed Project is within the limits of projected demand accounted for in the 2010 UWMP and is included in the projected demand shown previously in Table 4.16-5 (EMWD, 2015, p. 17).

The EMWD's determination that it has adequate water to serve the Project is based on EMWD's estimate of demand and supplies during average, single, and multiple dry years. Table 4.16-8 through

Table 4.16-10, *EMWD Existing Water Resources*, summarizes the estimated supplies and demand between 2015 and 2035 for the average year, dry year, and multiple dry year scenarios, respectively. As shown, EMWD anticipates that the majority of water for future development will be supplied by imported water from MWD during single dry years. Typically, MWD does not place imported water limits on a member agency, but predicts the future water demand based on regional growth information. MWD stated in its 2010 RUWMP that with the addition of all water supplies, existing and planned, MWD would have the ability to meet all of its member agencies' projected supplemental demand through 2035, even under a repeat of historic drought scenarios (EMWD, 2015, p. 20).

Furthermore, in March of 2014, EMWD updated its Water Shortage Contingency Plan (WSCP). In the case of shortage EMWD will reduce demand using substantial penalties for wasteful water. EMWD's WSCP details the plan for demand reduction for several stages of shortage through a 50 percent or greater reduction. Additional information about contingency planning is included in Section 5 of EMWD's 2010 UWMP. The WSCP is located in Title 5, Article 10 of the EMWD Administrative Code and is available on EMWD's website. As of December 2015, EMWD was in Stage 4 of the WSCP in response to current state-wide drought conditions. MWD is allocating water as described in its Water Supply Allocation Plan, and EMWD has reduced water demand to meet allocation targets. Current actions being undertaken by the EMWD are consistent with EWMD contingency planning (EMWD, 2015, p. 20).

Table 4.16-7 Project Water Demand

Description	Quantity	Demand Factor	Average Day Demand	Annual Demand	
		gpd/unit	gpd	MG	AFY
Business Park / Light Industrial / Warehouse	70.7 ac	550/ac	38,890	14	44
		TOTAL	38,890	14	44

Notes: ac = acres; gpd = gallons per day; MG = million gallons; AFY = acre-feet per year.
(EMWD, 2015, Table 10)
Note: The above calculations are based on a larger-sized project than is currently proposed and thus overstates the Project's water demand. The Project is proposed on 58.6 acres, resulting in a water demand of 32,230 gallons per day.

Table 4.16-8 EMWD Existing Water Resources - Average Year Hydrology (2015-2035)

	2015	2020	2025	2030	2035
Metropolitan Water District	149,300	170,700	190,700	210,000	226,200
Recycled	43,900	50,000	53,900	54,900	55,300
Groundwater	13,200	13,200	13,200	13,200	13,200
Existing Desalter	7,500	7,500	7,500	7,500	7,500
Total Existing Supplies	**213,900**	**241,400**	**265,300**	**285,600**	**302,200**
Total Projected Demands	**213,900**	**241,400**	**265,300**	**285,600**	**302,200**
Shortfall/Surplus	**0**	**0**	**0**	**0**	**0**

Based on a repeat of 2004- 2009 conditions
(EMWD, 2015, Table 11)

Table 4.16-9 EMWD Existing Water Resources - Dry Year Hydrology (2015-2035)

	2015	2020	2025	2030	2035
Metropolitan Water District	155,300	177,600	198,300	218,300	235,100
Recycled	45,500	51,800	55,800	56,900	57,300
Groundwater	13,200	13,200	13,200	13,200	13,200
Existing Desalter	7,500	7,500	7,500	7,500	7,500
Total Existing Supplies	**221,500**	**250,100**	**274,800**	**295,900**	**313,100**
Total Projected Demands	**221,500**	**250,100**	**274,800**	**295,900**	**313,100**
Shortfall/Surplus	**0**	**0**	**0**	**0**	**0**

Note: Based on a repeat of 1977 conditions
(EMWD, 2015, Table 12)

Table 4.16-10 EMWD Existing Water Resources – Multiple Dry Year Hydrology (2015-2035)

	2015	2020	2025	2030	2035
Metropolitan Water District	156,600	179,000	199,800	219,900	236,900
Recycled	45,800	52,200	56,200	57,300	57,700
Groundwater	13,200	13,200	13,200	13,200	13,200
Existing Desalter	7,500	7,500	7,500	7,500	7,500
Total Existing Supplies	**223,100**	**251,900**	**276,700**	**297,900**	**315,300**
Total Projected Demands	**223,100**	**251,900**	**276,700**	**297,900**	**315,300**
Shortfall/Surplus	**0**	**0**	**0**	**0**	**0**

Note: Based on a repeat of 1990-1992 conditions
(EMWD, 2015, Table 13)

Based on the foregoing analysis, the EMWD would have sufficient supplies to meet its anticipated demand for the foreseeable future, and no new or expanded entitlements would be needed to serve the Project. Although additional water usage reduction measures have been implemented in the form of the activated Stage 4 WSCP, the EMWD's UWMP and Project-specific WSA accounted for these possible conditions (Refer to EIR *Technical Appendix K*). Additionally, the Project would be required to comply with the provisions of the County's Water-Efficient Landscape Requirements (Ordinance No. 859), and also may be required by EMWD to install reclaimed water lines as part of the future Plan of Service, if available in the Project area, to further reduce the Project's water demand. Moreover, there are no unique conditions associated with the Project's proposed water service connections that would result in impacts to the environment that have not already been addressed by this EIR. Accordingly, impacts due to the construction of new or expanded water treatment facilities would be less than significant.

Threshold c)	***Would the proposed Project require or result in the construction of new wastewater treatment facilities, including septic systems, or expansion of existing facilities, the construction of which would cause significant environmental effects?***
Threshold d)	***Would the proposed Project result in a determination by the wastewater treatment provider that serves or may service the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?***

The Project does not propose any septic tanks, and no impacts would occur in association with septic systems.

Wastewater conveyance services would be provided by EMWD. Under existing conditions, an 8-inch-diameter sewer line is installed beneath the paved Oleander Avenue segment that abuts the northeastern corner of the Building D Site. As depicted on the utility plans shown in Figure 3-18 and Figure 3-19, in EIR Section 3.0, *Project Description*, the Project proposes to install an 8-inch-diameter sewer line beneath Oleander Avenue, between the western portion of the Building E Site and the existing wastewater line that abuts the northeastern corner of the Project site. Buildings D and E would connect to the proposed wastewater line beneath Oleander Avenue.

All sewer line installation work that occurs within a public street right-of-way must adhere to the construction control practices that reduce impacts that are specified in the State of California Department of Transportation Construction Manual, dated September 2014, published by Caltrans (Caltrans, 2014). The composition of wastewater produced by uses at proposed Building D and Building E would be similar to composition of wastewater generated within homes, small businesses, offices, retail shops, industrial developments, etc. and would not require any alterations to the EMWD wastewater treatment requirements or to their treatment facilities. Impacts associated with the construction of the proposed sewer facilities are an inherent part of the Project's construction process and environmental effects associated with the Project's construction phase have been evaluated throughout this EIR. Mitigation measures have been identified to reduce construction-related impacts to the maximum feasible extent, and there are no environmental impacts attributable solely to the Project's sewer connections. Impacts would be less than significant.

Sewer flows from the Project area are conveyed to the Perris Valley Regional Water Reclamation Facility (PVWRF). As previously indicated in Table 4.16-6, the PVWRF has a current capacity of 22.0 mgd, and receives typical daily flows of approximately 13.8 mgd. In addition, the PVRWRF has an ultimate capacity of 100.0 mgd that could be accommodated through further upgrades to the existing facility.

According to information contained in Riverside County EIR No. 521, industrial uses generate approximately 1,500 gpd of wastewater per acre (Riverside County, 2014, Table 4.19-BL). Thus, the 58.6 acres of business park warehouse development proposed by the Project would result in the generation of approximately 84,900 gpd (56.5 ac × 1,500 gpd = 84,900 gpd) of wastewater requiring treatment, or approximately 0.08 mgd. Wastewater from the Project site would comprise approximately 0.36 percent (0.08 mgd ÷ 22.0 mgd = 0.36%) of the 22.0 mgd of available capacity at the PVWRF as of April 2014. Under long-term conditions and with planned improvements to the PVWRF to achieve an ultimate capacity of 100.0 mgd, the Project's wastewater demand would comprise approximately 0.08 percent (0.08 ÷ 100.0 mgd = 0.08%). Accordingly, adequate wastewater treatment capacity exists to serve the proposed Project, and the Project would not result in or require the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects. Impacts would be less than significant.

Threshold e) Would the proposed Project be served by a landfill that does not have the permitted capacity to accommodate the project's solid waste disposal needs?

Construction and operation of the proposed Project would result in the generation of typical municipal solid wastes, requiring disposal at a landfill; each is discussed below.

❑ Construction Impact Analysis

Construction of the proposed Project would result in the generation of construction-related waste, primarily consisting of discarded materials and packaging. Based on the maximum building square footage of 1,113,627 square feet (s.f.) and the U.S. EPA's construction waste generation factor of 4.34 pounds per s.f., approximately 2,417 tons of waste (1,113,627 s.f. × 4.34 lbs per s.f. =4,833,141 pounds=2,417 tons) would be generated during the building construction phase (U.S. EPA, 2009). The Project's building construction would occur over a period of approximately 225 days, which corresponds to approximately 10.74 tons of construction waste being generated per day of building construction activity (2,417 tons ÷ 225 days = 10.74 tpd) (Urban Crossroads, Inc., 2015a). Additional waste would be expected from infrastructure installation and other Project-related construction activities. The California Building Standards Code (CBSC) Title 24 (CalGreen) requires that a minimum of 65% of construction wastes be recycled.

Construction wastes associated with the proposed Project that are not recycled or reused would require disposal at either the Badlands Landfill or the El Sobrante Landfill, which have adequate disposal capacity to receive construction waste generated by the Project. Capacity information is given below under the Operational Impact Analysis subheading. Impact to landfill capacity due to Project construction-related activities would be less than significant.

❑ Operational Impact Analysis

During the lifetime of Project operation and based on a daily waste generation factor of 10.8 tons per 1,000 square feet of building space per year, the Project's proposed 1,113,627 s.f. of business park building space would generate approximately 12,027 tons of solid waste per year, or approximately 33.0 tpd (12,027 tons per year ÷ 365 days = 33.0 tpd). As required by state law, a minimum of 50 percent of the solid waste generated by the Project would be diverted from the waste stream; thus, under long-term operating conditions, the Project would require approximately 16.5 tons per day (33.0 tpd × 50% = 16.5 tpd) of landfill disposal capacity.

Solid waste generated by the Project that is not recycled or reused would require disposal at either the Badlands Landfill, with a 2010 remaining daily capacity of 2,333 tpd, or the El Sobrante Landfill, with a 2010 remaining capacity of 2,799 tpd. Thus, the 16.5 tpd that would be generated by the Project upon buildout and would require disposal at a landfill would comprise approximately 0.71 percent (16.5 tpd ÷ 2,333 tpd = 0.71%) of the 2010 remaining daily capacity at the Badlands Landfill and 0.59 percent (16.5 tpd ÷ 2,799 tpd = 0.59%) of the 2010 remaining daily capacity at the El Sobrante Landfill. Accordingly, and based on the foregoing analysis, the Project would be served by a landfill with

sufficient permitted capacity to accommodate the Project's solid waste disposal needs, and impacts would be less than significant.

Threshold f)	***Would the proposed Project conflict with federal, state, and local statutes and regulations related to solid wastes including the CIWMP (County Integrated Waste Management Plan)?***

The California Integrated Waste Management Act (Assembly Bill [AB] 939), signed into law in 1989, established an integrated waste management system that focused on source reduction, recycling, composting, and land disposal of waste. In addition, the bill established a 50 percent waste reduction requirement for cities and counties by the year 2000, along with a process to ensure environmentally safe disposal of waste that could not be diverted. Per the requirements of the Integrated Waste Management Act, areas within Riverside County are subject to the County's Integrated Waste Management Plan (CIWMP), which outlines the goals, policies, and programs the County and its cities implement to create an integrated and cost effective waste management system that complies with the provisions of AB 939 and its diversion mandates.

Part of the RCWMD Planning Section's review of land-use/development projects is to ensure that adequate space is provided for collection of recyclables and that the solid waste disposal capacity of Riverside County facilities is not overburdened. As such, most new development projects are required to provide refuse/recycling collection and loading areas, as well as submit a Waste Recycling Plan (WRP). Specifically, the County of Riverside requires recycling storage/collection areas provided within new commercial, industrial, and multi-family developments. The collection areas are required to be shown on construction drawings and be in place before occupancy permits are issued. In addition, projects that have the potential to generate construction or demolition (C&D) waste are required to complete a County of Riverside WRP to identify the estimated quantity and location of recycling for C&D waste resulting from construction. As part of the WRP, a waste recycling report is required upon completion of project construction demonstrating the actual quantity of C&D waste recycled. Compliance with the RCWMD's "Design Guidelines for Recyclable Collection and Loading Areas" is necessary for obtaining RCWMD clearance in order to obtain a building permit within unincorporated Riverside County. The implementation of these mandatory requirements would reduce the amount of solid waste generated by the Project and diverted to landfills, which in turn will aid in the extension of the life of affected disposal sites. The Project would be required by law to comply with all applicable solid waste statutes and regulations; as such, impacts related to solid waste statutes and regulations would be less than significant (Riverside County, 2014, p. 4.17-45).

Threshold g)	***Would the proposed Project result in impacts to one or more of the following facilities, requiring or resulting in the construction of new facilities or the expansion of existing facilities, the construction of which could cause significant environmental effects:***
	i. Electricity?
	ii. Natural gas?
	iii. Communications systems?
	iv. Storm water drainage?
	v. Street lighting?
	vi. Maintenance of public facilities, including roads?
	vii. Other governmental services?

The proposed Project would include connections to existing electricity, natural gas, and communications infrastructure that already exist in this area, and all such connections would be accomplished in conformance with the rules and standards enforced by the applicable service provider. Impacts associated with the construction and operation of electricity, natural gas, communications systems, street lighting, public facilities maintenance, and other governmental services are an inherent part of the Project's construction process and operational characteristics, and the environmental effects associated with the Project's construction phase have been evaluated throughout this EIR. Mitigation measures have been identified to reduce construction- and operational-related impacts to the maximum feasible extent. There are no unique conditions associated with the Project's proposed utility service connections that would result in impacts to the environment that have not already been addressed by this EIR. Impacts would be less than significant.

In regards to storm water drainage, impacts associated with the construction and operation of Project-related storm water drainage facilities also are an inherent part of the Project's construction process and operational characteristics, and the environmental effects associated with the Project's construction and operation have been evaluated throughout this EIR. Mitigation measures have been identified to reduce construction- and operational-related impacts to the maximum feasible extent. There is one unique condition associated with the Project's proposed storm water drainage system, which is related to an interim improvement at the southwestern corner of the Building D Site to handle run-on from properties located to the southwest. Upstream flows from the areas south and west of the Building D Site that are not tributary to Lateral F-4 would be accommodated by interim improvements installed by the Project Applicant until Lateral F-3 is fully implemented by others to the east as planned for and directed by the Riverside County Flood Control and Water Conservation District (RCFCWCD) as part of the Perris Valley Master Drainage Plan (MDP). Under the near-term scenario, a portion of Lateral F-3 would be installed on the south side of the Building D Site to convey runoff from the off-site tributary area and discharge it at an outlet with energy dissipater near the southeast corner of the proposed Building D Site. The energy dissipater is a Project design feature that would preclude substantial erosion effects on the adjacent property that would receive the discharge at this concentrated flow point. With installation of the dissipater, off-site erosion would be less-than-significant as detailed in *Technical Appendix H* (DEA, 2017).

4.16.4 CUMULATIVE IMPACT ANALYSIS

The analysis of potential cumulative impacts to utilities and service systems is divided into five general topics of discussion by combining the Thresholds of Significance (listed above in Subsection 4.16.2) into groupings of like topics, as follows: 1) water facilities; 2) wastewater treatment facilities; 3) solid waste collection and disposal; and 4) other utilities (electricity, natural gas, storm water drainage facilities, etc.).

❑ Water Supplies and Facilities (Thresholds a and b)

The cumulative study area for water supply and water service-related issues is the EMWD's service area. Existing and future development within EMWD's service area would create a demand for additional water supplies. Increases in population and development intensity would contribute to increases in the overall regional water demand. According to the WSA prepared by the EMWD for the proposed Project (see EIR *Technical Appendix K*), and based on the demonstrated reliability of its water supply sources at the time the WSA was prepared, the EMWD has sufficient, reliable, and sustainable water supplies to meet Project water demands in addition to existing and future demands over the next 20 years and through 2035, including during single and multiple dry years (EMWD, 2015, p. 21). The EMWD has already activated Stage 4 of its Water Shortage Contingency Plan based on direction from the California Public Utilities Commission (CPUC) and will continue to implement the Contingency Plan if the drought continues. Mandatory implementation of the EMWD's Water Shortage Contingency Plan would ensure that water supplies are managed to ensure sufficient long-term supplies, even with the addition of cumulative development in the EMWD's service area. Thus, the proposed Project's effects on water supply would be less-than-cumulatively considerable.

The proposed Project would connect to existing water conveyance infrastructure installed beneath the paved Oleander Avenue segment that abuts the northeastern corner of the Building D Site and beneath an unnamed, private EMWD water tank access road that abuts the southern Project site boundary. None of the other pending projects identified in the list of Cumulative Projects (see EIR Table 4.0-1) would connect to that water line. The EMWD is projected to have adequate water supply for projected growth through at least 2035 in normal, single dry, and multiple-dry years. For these reasons, no cumulatively considerable impacts on water infrastructure or water supply would result from construction or operation of the proposed Project.

❑ Wastewater Conveyance and Treatment Capacity (Thresholds c and d)

The cumulative study area for wastewater conveyance and treatment capacity is the EMWD's service area. As previously discussed, construction of additional or expanded regional wastewater treatment facilities would not be required for this Project. Wastewater generated by the proposed Project would be conveyed via local sewer lines into the EMWD's regional sewer system for conveyance to the PVWRF. EMWD has adopted regulations for waste discharge and sewer use as part of Ordinance No. 59.6 (EMWD, 2013). The EMWD also charges Financial Participation Charges. These charges require all industrial companies discharging to the EMWD's sewerage system to pay connection fees, which include fees for sewer participation and sewer treatment plant capacity. The EMWD uses the fees for the expansion and improvement of their facilities, as needed, to serve existing and anticipated

developments (Riverside County, 2014, p. 4.16-5). Other future projects being served by the EMWD would be subject to EMWD's Ordinance No. 59.6 and would be required to pay applicable connections fees, which would be used by EMWD to expand and improve their facilities to serve existing and anticipated development. The PVWRF has a current capacity of 22.0 mgd and receives 13.8 mgd. Ultimate capacity is 100 mgd. Thus, there is adequate treatment capacity available to service the Project and cumulative development. Therefore, the Project's impacts to wastewater treatment facilities are determined to be less-than-cumulatively considerable.

❑ Solid Waste Collection and Disposal (Thresholds e and f)

The cumulative study area for solid waste collection and disposal are the areas of Riverside County and surrounding areas that are served by either the Badlands Landfill or the El Sobrante Landfill (refer to Subsection 4.16.1.D for a summary of areas served by these landfills).

Near-term construction activities associated with the Project would generate approximately 10.74 tpd of solid waste. Construction wastes associated with the proposed Project that are not recycled or reused would require disposal at either the Badlands Landfill or the El Sobrante Landfill. The Project's construction waste represents only 0.46 percent of the reported 2010 remaining daily capacity at the Badlands Landfill, and approximately 0.38 percent of the reported 2010 remaining daily capacity at the El Sobrante Landfill. Accordingly, the Project's generation of solid waste during construction would be less than significant on a cumulative basis.

Under long-term operating conditions, the Project would generate approximately 33.0 tpd of solid waste, of which up to 16.5 tpd would be conveyed to landfills for disposal. The 16.5 tpd that would be generated by the Project upon buildout would comprise approximately 0.71 percent of the 2010 remaining daily capacity at the Badlands Landfill and 0.59 percent of the 2010 remaining daily capacity at the El Sobrante Landfill. Due to the Project's small percentage of landfill capacity need compared to the amount of available capacity, the Project's operational impacts associated with solid waste would be less than cumulatively considerable.

Additionally, the Project and other cumulative developments in the western Riverside County and surrounding jurisdictions would be required to comply with all applicable solid waste statutes and regulations, including the requirement to divert at least 50 percent of solid waste materials from landfills. Accordingly, the Project and other cumulative developments have no potential to conflict with federal, state, and local statutes and regulations related to solid waste, and impacts would be less than significant on a cumulative basis, and the Project's contribution would be less than cumulatively considerable.

❑ Utilities (Threshold g)

Impacts associated with the construction of electricity, natural gas, communications systems, storm water drainage, street lighting, public facilities maintenance, and other governmental services are an inherent part of the Project's construction process and environmental effects, including cumulatively-considerable effects, associated with the Project's construction phase have been evaluated throughout

this EIR. Mitigation measures have been identified in other sections of the EIR that reduce construction-related cumulatively-considerable impacts to the maximum feasible extent. There are no unique conditions associated with the Project's proposed utility service connections that would result in impacts to the environment that have not already been addressed by this EIR. The Project's storm water drainage system interim outlet at the southeastern corner of the Building D Site would result in less-than-significant off-site erosion impacts because an energy dissapater will be installed in this location as a design feature of the Project to slow flows and minimize the potential for erosion. Accordingly, Project impacts due to the construction of utility connections would be less-than-cumulatively considerable.

4.16.5 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Thresholds (a) and (b) for the Building D Site and the Building E Site: Less-Than-Significant Impact. The EMWD has sufficient capacity to serve the Project with water in light of its existing and projected commitments, and no new entitlements would be required. The Project would not have an adverse effect on the ability of the EMWD to implement its Water Shortage Contingency Plan prepared in response to Executive Order B-29-15. Impacts associated with the installation of on-site and off-site water infrastructure are evaluated throughout the EIR and mitigation measures are identified for construction-related effects that would reduce construction-phase impacts to the maximum feasible extent. There would be no significant impacts specifically related to the installation of water infrastructure beyond the overall construction-related effects of the Project as a whole.

Thresholds (c) and (d) for the Building D Site and the Building E Site: Less-Than-Significant Impact. The proposed Project's wastewater generation would not exceed the capacity of the EMWD's Perris Valley Regional Water Reclamation Facility (PVWRF) and payment of mandatory connection fees and surcharges established by the EMWD's Wastewater Ordinance No. 59.6 would reduce the Project's incremental effect to a level of less than significant. Additionally, impacts associated with the construction of the proposed sewer facilities are an inherent part of the Project's construction process and environmental effects associated with the Project's construction phase have been evaluated throughout this EIR. Regulatory requirements, project design features, and mitigation measures have been identified to reduce construction-related impacts to the maximum feasible extent, and there are no environmental impacts attributable solely to the Project's sewer connections. Impacts would be less than significant.

Threshold (e) for the Building D Site and the Building E Site: Less-Than-Significant Impact. The proposed Project's solid waste disposal needs can be accommodated by existing Riverside County Waste Management Department (RCWMD) landfills (i.e., Badlands Landfill and/or El Sobrante Landfill), and the Project would be fully consistent with the Countywide Integrated Waste Management Plan (CIWMP) and its requirements. Project impacts would be less than significant.

Threshold (f) for the Building D Site and the Building E Site: Less-Than-Significant Impact. The Project would be required to comply with all applicable solid waste statutes and regulations; as such, impacts related to solid waste statutes and regulations would be less than significant.

Threshold (g) for the Building D Site and the Building E Site: Less-Than-Significant Impact. Impacts associated with the construction of electricity, natural gas, communications systems, storm water drainage, street lighting, public facilities maintenance, and other governmental services are an inherent part of the Project's construction process and environmental effects associated with the Project's construction phase have been evaluated throughout this EIR. Regulatory requirements, project design features, and mitigation measures have been identified in other sections of the EIR that reduce construction-related impacts to the maximum feasible extent. There are no unique conditions associated with the Project's proposed utility service connections that would result in impacts to the environment that have not already been addressed by this EIR. Impacts would be less than significant.

4.16.6 MITIGATION

Project impacts to utilities and service systems would be less than significant. No mitigation is required.

4.17 PALEONTOLOGICAL RESOURCES

As discussed in Section 3.0, *Project Description*, the proposed Project involves the development of two properties located south of Oleander Avenue and both east and west of Ellsworth Street totaling approximately 58.6 acres. The Building D Site is located on approximately 37.1 acres east of Ellsworth Street, and the Building E Site is located on approximately 21.5 acres west of Ellsworth Street. Both properties are collectively referred to as the "Project site." For purposes of evaluation herein, the two properties are referred to individually as the "Building D Site" and the "Building E Site."

The analysis in this subsection is based on two paleontological resource assessments. The paleontological resource assessment prepared for the Building D Site is titled, "Paleontological Resource Assessment for the Decker Parcels I Project," prepared by BFSA, dated April 28, 2015, and appended to this EIR as *Technical Appendix D3*. The paleontological resource assessment prepared for the Building E Site is titled "Paleontological Resource Assessment for the Decker Parcels II Project," prepared by BFSA, dated April 28, 2015, and appended to this EIR as *Technical Appendix D4*. Please note that *Appendix D4* was prepared prior to the Project Applicant's decision to reduce the size of the Building E Site to its current configuration; therefore, the report covers additional acreage (west of the Building E Site) that is no longer in the Project site boundary and is not applicable to the discussion herein of potential on-site impacts. These and all references used in this Subsection are included in EIR Section 7.0, *References*.

4.17.1 EXISTING CONDITIONS

A. Paleontological Resources

The Paleontological Resources Preservation Act (P.L. 111-011 Omnibus Public Land Management Act of 2009) defines the term "paleontological resource" as any fossilized remains, traces, or imprints of organisms, preserved in or on the earth's crust, that are of paleontological interest and that provide information about the history of life on earth, except that the term does not include: a) any materials associated with an archaeological resource (as defined in section 3(1) of the Archaeological Resources Protection Act of 1979 (16 U.S.C. 470bb(1); or b) any cultural item (as defined in section 2 of the Native American Graves Protection and Repatriation Act (25 U.S.C. 3001) (Congress, 2009).

Riverside County GIS maps the majority of the Building D Site and the entire Building E Site as having "Low Potential" paleontological sensitivity (refer to Figure 4.17-1, *Paleontological Sensitivity Map*). "Low Potential" paleontological sensitivity is defined by County of Riverside EIR No. 521 as lands for which previous field surveys and documentation demonstrate as having a low potential for containing significant paleontological resources subject to adverse impacts. The mapping of low potential was determined based on actual documentation and was not generalized to cover all areas of a particular rock unit on a geologic map. (Riverside County, 2015d, p. 4.9-10) In addition, BFSA determined that the Cretaceous granitic rocks that underlie the majority of the Project site have no potential for the discovery of fossils or fossil-bearing materials (BFSA, 2015b, p. 2).

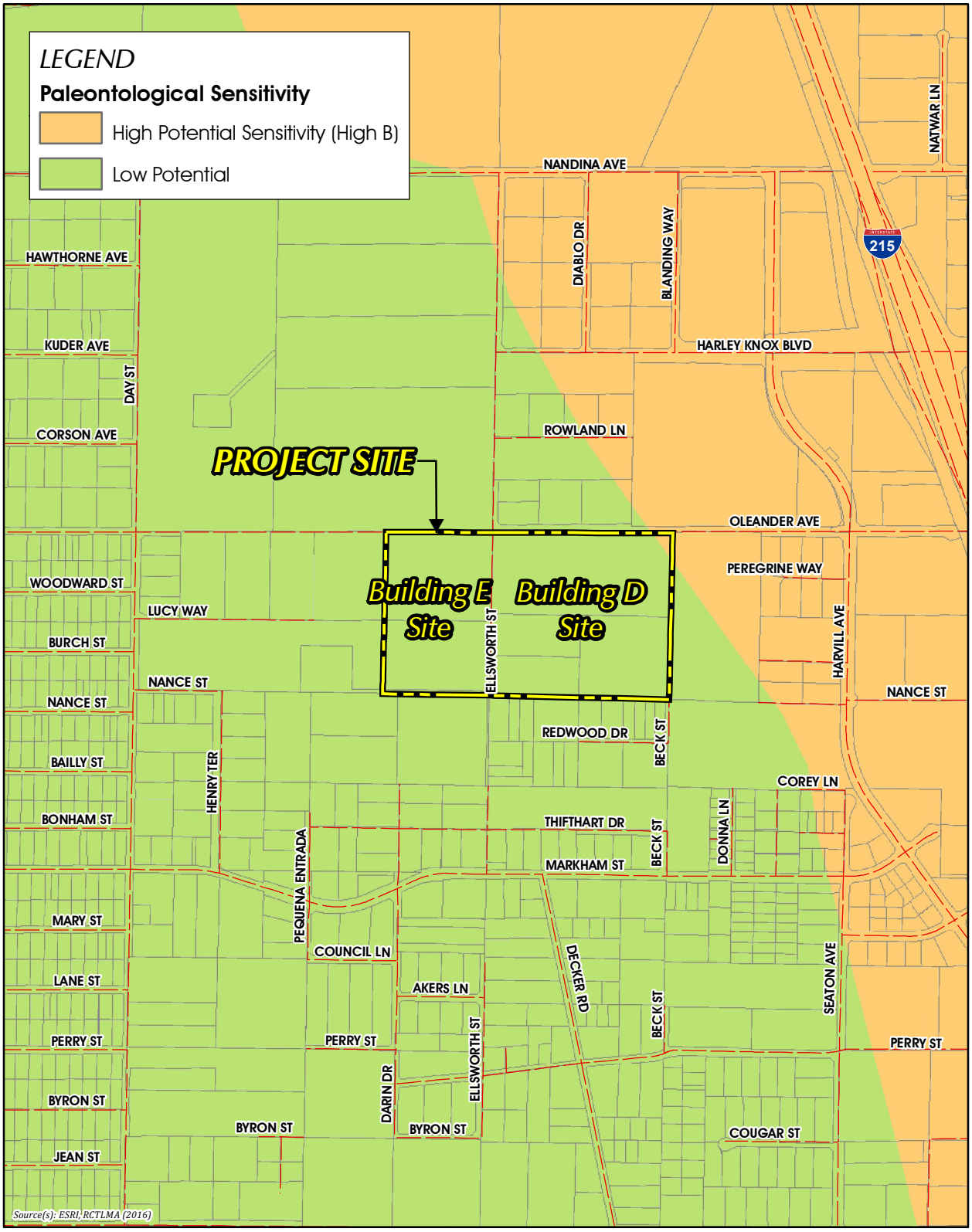


Figure 4.17-1

PALEONTOLOGICAL SENSITIVITY MAP

The likelihood of finding fossils in granitic rocks on the Project site is very low. Any thin cover of Holocene alluvial deposits derived from the upslope exposures of these granitic rocks also would be too minor and geologically too young to contain fossils or fossil remains. (BFSA, 2015c, pp. 1-2)

Riverside County GIS maps the northeastern corner of the Building D Site as having "High B" paleontological sensitivity (refer to Figure 4.17-1, *Paleontological Sensitivity Map*). The High B paleontological sensitivity rating encompasses only the outcrop areas of the mapped Quaternary very old alluvial fan sediments. (BFSA, 2015b, pp. 2-3) According to County of Riverside EIR No. 521, sedimentary rock units with a high potential for containing significant non-renewable paleontological resources include rock units in which vertebrate or significant invertebrate fossils have been found or are determined as likely to be present. These units include, but are not limited to, sedimentary formations which contain significant nonrenewable paleontological resources anywhere within their geological extent and sedimentary rock with the physical character of a rock or rock formation suitable for the preservation of fossils. High sensitivity includes not only the potential for yielding an abundance of vertebrate fossils but also areas that may produce a few important fossils that may provide new and relevant data. High sensitivity is mapped as either "High A" or "High B." "High A" is based on the geologic formations or mapped rock units that are known to contain or have the correct age and depositional conditions to contain significant paleontological resources. These include rocks that have the potential to contain remains of fossilized fish and rocks that contain fossilized body elements such as tracks, nests, and eggs. High B sensitivity is equivalent to High A sensitivity but is based on the occurrence of fossils at or below 4 feet in depth. (Riverside County, 2015d, p. 4.9-17)

A pedestrian field survey conducted by BFSA in 2014 did not reveal the presence of any fossils or fossil-bearing sedimentary units across the Building D Site or the Building E Site. (BFSA, 2015b, p. 2), (BFSA, 2015c, pp. 1-2)

4.17.2 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to paleontological resources if the Project or any Project-related component would:

a) Directly or indirectly destroy a unique paleontological resource, or site, or unique geologic feature.

4.17.3 IMPACT ANALYSIS

Threshold a) Would the Project directly or indirectly destroy a unique paleontological resource, or site, or unique geologic feature?

1. Building D Site

The majority of the Building D Site is mapped as having "Low Potential" paleontological sensitivity. In addition, BFSA determined that the Cretaceous granitic rocks that underlie the majority of the Building D Site have no potential for the discovery of fossils or fossil-bearing materials. However,

the outcrop areas of the mapped Quaternary very old alluvial fan sediments in the northeastern corner of the Building D Site are mapped as having "High B" paleontological sensitivity. (BFSA, 2015b, pp. 2-3).

Grading and excavation activities on the Building D Site that occur greater than 4.0 feet in depth and are mapped Quaternary very old alluvial fan sediments in the northeastern corner of the Building D Site (which are mapped by Riverside County as having "High B" paleontological sensitivity), have the potential to unearth paleontological resources that may exist below the ground surface. If significant paleontological resources are unearthed there is a potential for a significant impact if the resources are not properly identified and treated. Therefore, the Project's potential to directly or indirectly destroy unique paleontological resources that may be present beneath the ground surface in the northeastern corner of the Building D Site is a potentially significant impact and mitigation is required. Refer to Subsection 4.17.6 for applicable mitigation measures.

2. Building E Site

The entire Building E Site, which is underlain by granitic rocks, is mapped by Riverside County as having "Low Potential" paleontological sensitivity. The likelihood of finding fossils in granitic rocks is nil. Because the granitic rocks that underlie the Building E Site have no potential to contain fossils or fossil remains, the proposed Project would have no potential to directly or indirectly destroy a unique paleontological resource or site or unique geological feature on the Building E Site. No impact to paleontological resources would occur as a result of implementing the proposed Project on the Building E Site.

4.17.4 CUMULATIVE IMPACT ANALYSIS

This cumulative impact analysis considers development of the Project site in conjunction with other development projects that would disturb geologic structures with paleontological sensitivity and the potential to contain fossils, resulting from full General Plan buildout in the parts of the Riverside County General Plan covered by the Harvest Valley/Winchester Area Plan (HVWAP), the Lakeview/Nuevo Area Plan (LNAP), and the Mead Valley Area Plan (MVAP), in addition to the City of Moreno Valley, the City of Perris, and the City of Riverside.

No paleontological resources have been identified on or near the Project site; however, grading and excavation activities on the Building D Site that occur greater than 4.0 feet in depth and are mapped Quaternary very old alluvial fan sediments in the northeastern corner of the Building D Site (which are mapped by Riverside County as having "High B" paleontological sensitivity), have the potential to unearth paleontological resources that may exist below the ground surface. Similarly, cumulative development in this same geologic formation have the potential to unearth paleontological resources. Therefore, the Project's potential to result in a cumulatively considerable impact to unique paleontological resources is a significant impact for which mitigation is required.

4.17.5 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

Threshold (a) for the Building D Site: Significant Direct and Cumulatively Considerable Impact. Construction activities on the Building D Site have the potential to unearth and adversely impact paleontological resources that may be buried beneath the ground in Quaternary very old alluvial fan sediments located in the northeastern corner of the Building D Site mapped as having "High B" paleontological sensitivity. Impacts would be significant on a direct and cumulatively considerable basis if discovered resources are significant and are not properly identified and treated.

Threshold (a) for the Building E Site: Less-than-Significant Impact. The Project as proposed on the Building E Site would not directly or indirectly destroy a unique paleontological resource, or site, or unique geologic feature.

4.17.6 MITIGATION

The following mitigation measure applies to the Building D Site.

MM 4.17-1 For grading activities that will occur greater than 4.0 feet in depth in Quaternary very old alluvial fan sediments located in the northeast portion of the Building D Site, the County of Riverside shall require that a Paleontological Resource Impact Mitigation Program (PRIMP) be implemented by a qualified paleontologist. The PRIMP shall be consistent with current regulations implemented by the County of Riverside and the proposed guidelines of the Society of Vertebrate Paleontology. The PRIMP shall be prepared and submitted by a qualified paleontologist to the County of Riverside prior to the issuance of a grading permit for the Building D Site. The PRIMP shall outline the locations where monitoring by a qualified paleontologist would be required and the protocols to be followed in the event that fossils are discovered to ensure that significant resources are properly identified and treated and that no significant paleontological resource, site, or unique geologic feature is destroyed. The protocols documented in the PRIMP are required to be followed.

4.17.7 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Threshold (a) for the Building D Site: Less-than-Significant with Mitigation. Implementation of MM 4.17-1 would ensure the proper identification and subsequent treatment of any significant paleontological resource, site, or unique geologic feature that may be encountered during ground-disturbing activities associated with Project excavation activities in the northeast fringe of the Building D Site mapped as Quaternary older alluvial fan sediments. Therefore, with implementation of MM 4.17-1, the Project's potential to impact paleontological resources on the Building D Site would be reduced to less-than-significant.

5.0 OTHER CEQA CONSIDERATIONS

5.1 SIGNIFICANT ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED IF THE PROPOSED PROJECT IS IMPLEMENTED

The CEQA Guidelines require that an EIR disclose the significant environmental effects of a project which cannot be avoided if the proposed project is implemented (CEQA Guidelines § 15126(b)). As described in detail in Section 4.0, *Environmental Analysis*, of this EIR, the proposed Project is anticipated to result in impacts to the environment that cannot be reduced to below a level of significance after implementation of relevant standard conditions of approval, compliance with applicable regulations, and application of feasible mitigation measures. The significant impacts that cannot be mitigated to a level below significant consist of the following:

- Air Quality - Significant and Unavoidable Direct and Cumulatively Considerable Impact. There are no feasible mitigation measures to eliminate or offset the Project's inconsistency with SCAQMD's 2012 AQMP due to exceedance of SCAQMD daily emissions thresholds. .

- Air Quality - Significant and Unavoidable Direct and Cumulatively Considerable Impact. Even after the application of feasible mitigation measures, the Project's VOCs and NO_X daily operational emissions would exceed the SCAQMD's significance thresholds. Emissions of NO_X are primarily a result of mobile source emissions (i.e., vehicles traveling to and from the Project site), which are regulated by state and federal emissions and fuel use standards, and beyond the direct control of the Project Applicant and/or future users of the Project site's buildings.

- Land Use and Planning – Significant and Unavoidable Direct and Cumulatively Considerable Impact. The Project would develop the subject property with two business park warehouse buildings and associated site improvements, including, but not limited to, surface parking areas, vehicle drive aisles, truck courts, utility infrastructure, landscaping, exterior lighting, signage, walls and fencing, and water quality/detention basins. The changes to the Project site represent a substantial alteration to the site's present land use, construction and operation of which would result in significant effects to the environment that cannot be reduced to less-than-significant levels through the application of feasible mitigation.

- Noise (Traffic Related) – Significant and Unavoidable Direct Impact. No feasible mitigation measures are available to reduce the Project's transportation-related noise impacts along the Oleander Avenue segments west of Harvill Avenue and east of the Project's Driveway #6 under Existing + Project and Project Opening Year 2017 conditions. Although noise levels along the affected segments of Oleander Avenue would not exceed the County's 65 dBA CNEL standard for noise-sensitive uses, the Project's contribution to existing noise levels would represent a substantial noise increase over existing conditions, and residential structures would be affected. The affected residential parcels are non-conforming and

designated by the Riverside County General Plan for "Business Park" land uses. By the Year 2035, the Project's contribution of transportation-related noise along the above-listed segments of Oleander Avenue would be reduced to less than significant levels, because as ambient traffic volumes increase on the road, the Project's overall percentage of the noise contribution would diminish. Although the Project's impact would be significant and unavoidable, the impact in Year 2035 would be less than significant.

- Transportation (Local Roadway System) - Significant and Unavoidable Cumulatively Considerable Impact. The Project Applicant would pay development impact fees and participate in fair share funding programs to mitigate the Project's direct and cumulative impacts to the local roadway network. However, several of the needed transportation improvements are either funded by existing mitigation funding programs (including TUMF) with no timetable for construction (meaning the necessary improvements may not be in place when the Project becomes operational and starts to contribute traffic to the facilities), or the improvements are not included in any existing mitigation funding program (therefore, there is no mechanism currently available for development projects to contribute toward the construction of needed improvements, and thus no assurance that the improvements would be implemented). Accordingly, the Project's cumulatively considerable impacts to four (4) intersections in the Existing + Ambient Growth + Project + Cumulative (E+A+P+C) analysis scenario are concluded to be unavoidable. The affected intersections are: 1) Decker Road / Oleander Avenue; 2) Harvill Avenue / Harley Knox Boulevard; 3) I-215 Southbound Ramps / Harley Knox Boulevard; and 4) I-215 Northbound Ramps / Harley Knox Boulevard.

- Transportation (State Highway System) – Significant and Unavoidable Cumulatively Considerable Impact. The Project would contribute traffic to the state highway system, which is under the jurisdiction of Caltrans. As such, the County of Riverside cannot assure the construction of improvements to state highway facilities. Furthermore, Caltrans does not have funding mechanism in place to allow development projects to contribute fair-share payments. Although a mitigation measure is recommended that requires the Project Applicant to offer fair share fee contributions to Caltrans to fund improvements to state highway system facilities that the Project's traffic would impact, there is no assurance that Caltrans will develop a fee program and implement the improvements prior to the time that the Project begins to contribute traffic to the facilities. Accordingly, the Project's contribution of traffic to the state highway system facilities under E+A+P+C and/or Horizon Year (2035) conditions is concluded to be a significant and unavoidable cumulative impact.

5.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES WHICH COULD BE CAUSED BY THE PROPOSED PROJECT SHOULD IT BE IMPLEMENTED

The CEQA Guidelines require EIRs to address any significant irreversible environmental changes that would be involved in the proposed action should it be implemented (CEQA Guidelines §15126.2(c)). An environmental change would fall into this category if: a) the project would involve

a large commitment of non-renewable resources; b) the primary and secondary impacts of the project would generally commit future generations to similar uses; c) the project involves uses in which irreversible damage could result from any potential environmental accidents; or d) the proposed consumption of resources are not justified (e.g., the project results in the wasteful use of energy).

Determining whether the proposed Project may result in significant irreversible environmental changes requires a determination of whether key non-renewable resources would be degraded or destroyed in such a way that there would be little possibility of restoring them. Natural resources, in the form of construction materials and energy resources, would be used in the construction of the proposed Project. The consumption of these natural resources would represent is an irreversible change to the environment. However, development of the Project site as proposed would have no measurable adverse effect on the availability of such resources, including resources that may be non-renewable (e.g., fossil fuels). Additionally, the Project is required by law to comply with the California Building Standards Code (CALGreen), which will minimize the Project's demand for energy, including energy produced from non-renewable sources. A more detailed discussion of energy consumption is provided below in Subsection 5.4.

Implementation of the Project would commit future generations to two large business park warehouse buildings on the Project site. As demonstrated in the analysis presented throughout EIR Section 4.0, construction and long-term operation of the proposed Project would be compatible with existing and planned future land uses that surround the Project site and would not result in significant physical environmental effects to nearby properties. Although the Project would cause unavoidable impacts to the environment associated with air quality, land use and planning, noise, and traffic as summarized above in Subsection 5.1, these effects would not commit surrounding properties to land uses other than those that are present under existing conditions or planned by the County of Riverside General Plan. For this reason, the Project would not result on a significant, irreversible change to nearby, off-site properties.

EIR Subsection 4.8, *Hazards and Hazardous Materials*, provides an analysis of the proposed Project's potential to transport or handle hazardous materials which, if released into the environment, could result in irreversible damage to the environment. As concluded in the analysis, compliance with federal, state, and local regulations related to hazardous materials would be required of all contractors working on the property during the Project's construction and of all users that occupy the Project's buildings. As such, construction and long-term operation of the proposed Project would not have the potential to cause significant irreversible damage to the environment, including damage that may result from upset or accident conditions.

As discussed under Subsection 5.4, the Project would not result in a wasteful consumption of energy. Accordingly, the Project would not result in a significant, irreversible change to the environment related to energy use.

5.3 GROWTH-INDUCING IMPACTS OF THE PROPOSED PROJECT

CEQA requires a discussion of the ways in which the proposed Project could be growth inducing. The CEQA Guidelines identify a project as growth inducing if it would foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment (CEQA Guidelines §15126.2(d)). New employees and new residential populations represent direct forms of growth. These direct forms of growth have a secondary effect of expanding the size of local markets and inducing additional economic activity in the area.

Because users of the Project's buildings are not yet known, the number of jobs that the Project would generate cannot be precisely determined; therefore, for purposes of analysis, employment estimates were calculated using data and average employment density factors utilized in the County of Riverside General Plan. The General Plan estimated that light industrial business would employ one (1) worker for every 1,030 s.f. of building area. Based on this employment generation rate, the Project is expected to create approximately 1, 081 new recurring jobs (1,113,627 s.f. ÷ 1,030). (Riverside County, 2003a, Appendix E) The proposed Project also would create short-term construction-related jobs. It is expected that the majority of the construction-related employees would be drawn from the existing labor force that would be available in the County of Riverside, as the County has a shortage of jobs. The overall jobs-to-housing ratio in the County is 1.07 jobs per household; however, this number is skewed by the number of jobs within the incorporated areas of the County. In unincorporated areas of western Riverside County, like the Project area, there is only 0.66 jobs per household, which represents a severe shortage of jobs. SCAG considers a jobs-to-housing ratio between 1.0 and 1.29 to be balanced. (Riverside County, 2015c, p. H-57)

A project could indirectly induce growth at the local level by increasing the demand for additional goods and services associated with an increase in population or employment and thus reducing or removing the barriers to growth. This typically occurs in suburban or rural environs where population growth results in increased demand for service and commodity markets responding to the new population of residents or employees. Economic growth would likely take place as a result of the proposed Project's operation as two business park warehouse buildings. The Project's construction-related and operational-related employees would purchase goods and services in the region, but any secondary increase in employment associated with meeting these goods and services needs is expected to be marginal, accommodated by existing goods and service providers, and highly unlikely to result in any new physical impacts to the environment based on the amount of available commercial and retail services available in areas near the Project site, including the Cities of Perris, Moreno Valley, and Riverside. In addition, the Project would create jobs which likely would serve the housing units either already built or planned for development within Riverside County, based on the severe shortage of jobs per household in western Riverside County (as noted above). Accordingly, the on-site employment generation would not induce substantial growth in the area because it is anticipated that the Project's future employees would already be living in the Riverside County area.

Under CEQA, growth inducement is not considered necessarily detrimental, beneficial, or of little significance to the environment. Typically, growth-inducing potential of a project would be considered significant if: 1) development fosters growth or a concentration of population in excess of what is assumed in pertinent master plans, land use plans, or in projections made by regional planning agencies such as SCAG; or 2) if a project provides infrastructure or service capacity to accommodate growth beyond the levels currently permitted by local or regional plans and policies. In general, growth induced by a project is considered a significant impact if it can be demonstrated that the potential growth significantly affects the environment in some other way.

Related to the first item in the paragraph above, the land uses proposed by the Project would differ substantially than the land uses that are permitted on the Project site under existing conditions and, in fact, the Project would develop the Project site at a lower intensity than what is permitted on the Project site under existing conditions. Therefore, the Project would not foster growth or a concentration of population in excess of what is assumed on local and regional planning documents. Related to the second item in the paragraph above, the Project would install new public infrastructure improvements, including roads, drainage infrastructure, and other utility improvements; however, these infrastructure improvements are sized to primarily serve the Project and to provide a future connection point for land uses planned by the Riverside County General Plan. There are no development proposals in the immediate Project vicinity that would utilize the same infrastructure as the Project; therefore, it is speculative to conclude whether or not the Project's installation of new infrastructure would induce substantial, unanticipated growth. Based on the foregoing, the Project is not expected to directly or indirectly induce growth in the local area.

5.4 ENERGY CONSERVATION

This Subsection is based in part on a technical report prepared by Urban Crossroads, Inc. titled, "Knox Business Park Energy Analysis, County of Riverside," dated January 28, 2016 and appended to this EIR as *Technical Appendix L*. (Urban Crossroads, Inc., 2016d) Please note that *Technical Appendix B1* and *Technical Appendix L* was prepared prior to the Project Applicant's decision to reduce the size of the Building E Site and the size of its proposed building to the current configurations described in EIR Section 3.0, *Project Description*. Therefore, the energy use calculations presented herein for Building E and the overall Project site overstate the amount of energy that the Project will consume. Based on the currently-proposed size of Building E, the Project's overall traffic generation (and thus fuel use) would be reduced by approximately 12% that disclosed in *Technical Appendix L*.

Federal and state agencies regulate energy use and consumption through various means and programs. On the federal level, the United States Department of Transportation (DOT), the United States Department of Energy (DOE), and the United States Environmental Protection Agency (EPA) are three federal agencies with substantial influence over energy policies and programs. On the state level, the Public Utilities Commission (PUC) and the California Energy Commissions (CEC) are two agencies with authority over different aspects of energy. Relevant federal and state energy-related

laws and plans are summarized below. Project consistency with applicable federal and state regulations is presented below each regulation.

5.4.1 APPLICABLE FEDERAL AND STATE POLICIES AND REQUIREMENTS

A. Federal Regulations

1. Intermodal Surface Transportation Efficiency

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) promoted the development of inter-modal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. ISTEA contained factors that Metropolitan Planning Organizations (MPOs) were to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values guiding transportation decisions. (Urban Crossroads, Inc., 2016d, p. 13)

Project Consistency: Transportation and access to the Project site is provided primarily by the local and regional roadway systems. The Project would not interfere with, nor otherwise obstruct intermodal transportation plans or projects that may be realized pursuant to ISTEA because SCAG is not planning for intermodal facilities on or through the Building D Site or the Building E Site. (Urban Crossroads, Inc., 2016d, p. 13)

2. Transportation Equity Act for the 21st Century (TEA-21)

The Transportation Equity Act for the 21st Century (TEA-21) was signed into law in 1998 and builds upon the initiatives established in the ISTEA legislation, discussed above. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of wise transportation decisions. TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of Intelligent Transportation Systems, to help improve operations and management of transportation systems and vehicle safety. (Urban Crossroads, Inc., 2016d, p. 13)

Project Consistency: The Project site is located near major transportation corridors with proximate access to the interstate freeway system. The site selected for the Project facilitates access, acts to reduce vehicle miles traveled, takes advantage of existing infrastructure systems, and promotes land use compatibilities through collocation of similar uses. The Project supports the strong planning process through TEA-21. The Project is therefore consistent with, and would not otherwise interfere with, nor obstruct implementation of TEA-21. (Urban Crossroads, Inc., 2016d, p. 13)

B. California Regulations

1. Integrated Energy Policy Report

Senate Bill 1389 (Bowen, Chapter 568, Statutes of 2002) requires the California Energy Commission (CEC) to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing California's electricity, natural gas, and transportation fuel sectors and provides policy recommendations. The 2014 Integrated Energy Policy Report Update (2014 IEPR Update), focuses on next steps for transforming transportation energy use in California. The 2014 IEPR Update addresses the role of transportation in meeting state climate, air quality, and energy goals; the Alternative and Renewable Fuel and Vehicle Technology Program; current and potential funding mechanisms to advance transportation policy; the status of statewide plug-in electric vehicle infrastructure; challenges and opportunities for electric vehicle infrastructure deployment; measuring success and defining metrics within the Alternative and Renewable Fuel and Vehicle Technology Program; market transformation benefits resulting from Alternative and Renewable Fuel and Vehicle Technology Program investments; the state of hydrogen, zero-emission vehicle, biofuels, and natural gas technologies over the next ten years; transportation linkages with natural gas infrastructure; evaluation of methane emissions from the natural gas system and implications for the transportation system; changing trends in California's sources of crude oil; the increasing use of crude-by-rail in California; the integration of environmental information in renewable energy planning processes; an update on electricity reliability planning for Southern California energy infrastructure; and an update to the electricity demand forecast. (Urban Crossroads, Inc., 2016d, pp. 14-15)

Project Consistency: 2014 IEPR Update is a State Policy report. An individual development project such as the proposed Project has no ability to comply with or conflict with this report.

2. State of California Energy Plan

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. 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 and encouragement of urban designs that reduce vehicle miles traveled and accommodate pedestrian and bicycle access. (Urban Crossroads, Inc., 2016d, p. 15)

Project Consistency: The Project site is located along major transportation corridors with proximate access to the Interstate freeway system. The site selected for the Project facilitates access, acts to reduce vehicle miles traveled, takes advantage of existing infrastructure systems, and promotes land use compatibilities through the development of business park warehouse buildings in the Mead Valley community. The Project therefore supports urban design and planning processes identified under the State of California Energy Plan, is consistent with, and would not otherwise interfere with,

nor obstruct implementation of the State of California Energy Plan. (Urban Crossroads, Inc., 2016d, p. 15)

3. California Code Title 24, Part 6, Energy Efficiency Standards

California Code Title 24, Part 6 (also referred to as the California Energy Code), was promulgated by the CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption. To these ends, the California Energy Code provides energy efficiency standards for residential and nonresidential buildings. California's building efficiency standards are updated on an approximately three-year cycle. The 2013 Standards for building construction, which went into effect on July 1, 2014, improved upon the former 2008 Standards for residential and nonresidential buildings. (Urban Crossroads, Inc., 2016d, pp. 15-16)

Project Consistency: The Project is required by State law to be designed, constructed, and operated to meet or exceed Title 24 Energy Efficiency Standards. On this basis, the Project is determined to be consistent with, and would not interfere with, nor otherwise obstruct implementation of Title 24 Energy Efficiency Standards. (Urban Crossroads, Inc., 2016d, pp. 15-16)

4. California Renewable Portfolio Standards (SB 1078)

SB 1078 requires electric corporations to increase the amount of energy obtained from eligible renewable energy resources to 20 percent by 2010 and 33 percent by 2020.

Project Consistency: Energy directly or indirectly supplied to the Project by electric corporations is required by law to comply with SB 1078.

5.4.2 ENERGY CONSUMPTION ANALYSIS

In compliance with CEQA Guidelines Appendix F, below is an analysis of the proposed Project's anticipated energy use to determine if the Project would result in the wasteful, inefficient or unnecessary consumption of energy, or result in a substantial increase in demand or transmission service, resulting in the need for new or expanded sources of energy supply or new or expanded energy delivery systems or infrastructure.

In addition, CEQA Guidelines Appendix F states that the means of achieving the goal of energy conservation includes the following:

- Decreasing overall per capita energy consumption;
- Decreasing reliance on fossil fuels such as coal, natural gas and oil; and
- Increasing reliance on renewable energy sources.

A. Methodology

Information from the CalEEMod 2013.2.2 outputs for the Project's Air Quality Impact Analysis (*Technical Appendix B1*) was utilized in the Project's Energy Analysis (*Technical Appendix L*) and the analysis presented herein, detailing Project-related construction equipment, transportation energy demands, and facility energy demands. These outputs are referenced in Appendix 3.1 of *Technical Appendix L*. (Urban Crossroads, Inc., 2016d, p. 17)

B. Construction Equipment Electricity Usage

Based on the *2015 National Constructor Estimato*r, the typical power cost per 1,000 s.f. of building construction per month is estimated to be $2.28. The Project plans to develop approximately 1,259,050 s.f. of building space over the course of 19 months. Based on these numbers, the total power cost of on-site electricity usage during the construction of the proposed Project is estimated to be approximately 54,542.05. As of February 2015, SCE's general service rate for an industrial land use is $.07 per kilowatt hours (kWh) of electricity. Accordingly, the total electricity usage from on-site Project construction-related activities is calculated by Urban Crossroads, Inc. to be approximately 779,172 kWh. (Urban Crossroads, Inc., 2016d, p. 17)

C. Energy and Fuel Use for Project Construction

The Project's construction process would consume electrical energy and fuel. Project construction would represent a "single-event" electric energy and fuel demand and would not require on-going or permanent commitment of energy or diesel fuel resources for this purpose. In summary, the Project's construction process is estimated to consume approximately 779,172 kWh of electricity and an estimated 153,293 gallons of diesel fuel (see detailed discussion below). (Urban Crossroads, Inc., 2016d, p. 25)

Diesel fuel would be supplied by county and regional commercial vendors. Indirectly, construction energy efficiencies and energy conservation would be achieved through the use of bulk purchases, transport, and use of construction materials. The 2014 IEPR published by the CEC shows that fuel efficiencies are improving for on and off-road vehicle engines due to more stringent government requirements. This amount of energy and fuel use anticipated by the Project's construction activities are typical for the type of construction proposed because there are no aspects of the Project's proposed construction process that are unusual or energy-intensive, and Project construction equipment would conform to the applicable CARB emissions standards, acting to promote equipment fuel efficiencies. CCR Title 13, Title 13, Motor Vehicles, Section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than 5 minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. Applicable Mitigation Measures contained in EIR Section 4.3, *Air Quality* will inform construction equipment operators of this requirement. Enforcement of idling limitations is realized through periodic site inspections conducted by County building officials, and/or in response to citizen complaints. As supported by the preceding discussions, Project construction energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary. (Urban Crossroads, Inc., 2016d, p. 25)

1. Construction Equipment Fuel Use

Fuel consumed by construction equipment would be the primary energy resource expended over the course of Project construction. The aggregate fuel consumption rate for all equipment is estimated at 18.5 horsepower hours per gallon (hp-hr-gal.), obtained from CARB 2013 Emissions Factors Tables and cited fuel consumption rate factors presented in Table D-24 of the Moyer guidelines. For the purposes of the Energy Analysis (*Technical Appendix L*) and the analysis presented herein, the calculations are based on all construction equipment being diesel-powered which is standard practice consistent with industry standards. Diesel fuel would be supplied by existing commercial fuel providers serving Riverside County and the region. Project construction activities would consume an estimated 153,293 gallons of diesel fuel. Project construction would represent a "single-event" diesel fuel demand and would not require ongoing or permanent commitment of diesel fuel resources for this purpose. (Urban Crossroads, Inc., 2016d, p. 18/)

2. Construction Worker Fuel Use

Urban Crossroads, Inc. applied a reasonable assumption in their Energy Analysis (*Technical Appendix L*) that all construction worker trips to and from the Project site would be in light duty autos (LDA) along area roadways. With respect to estimated vehicle miles traveled (VMT), the construction worker trips would generate an estimated 3,170,496 VMT based on an average 14.7 mile average trip length and the number of construction days reported in EIR Section 3.0, *Project Description*. (Urban Crossroads, Inc., 2016d, p. 20)

As generated by EMFAC 2014, an aggregated fuel economy of LDAs ranging from model year 1974 to model year 2017 have a fuel efficiency of 26.27 miles per gallon (MPG). Urban Crossroads, Inc. calculated that 120,605 gallons of fuel would be consumed related to construction worker trips for the proposed Project. Project construction worker trips would represent a "single-event" gasoline fuel demand and would not require on-going or permanent commitment of fuel resources for this purpose. (Urban Crossroads, Inc., 2016d, p. 20) Refer to Table 4-4 of *Technical Appendix L* for the construction worker fuel consumption calculations.

3. Construction Vendor Fuel Use

With respect to estimated VMT, the Project's construction vendor trips would generate an estimated 319,815 VMT along area roadways based on a 6.9-mile average trip length and the number of construction days reported in EIR Section 3.0, *Project Description*. In their analysis, Urban Crossroads, Inc. applied a reasonable assumption that 50% of all vendor trips would be from medium-heavy duty trucks (MHD) and 50% would be from heavy-heavy duty trucks (HHD). These assumptions are consistent with the 2013.2.2 CalEEMod defaults utilized within the Project's Air Quality Impact Analysis (*Technical Appendix B1*). Vehicle fuel efficiencies for MHD and HHD trucks were based on information generated within EMFAC 2014. For purposes of the Energy Analysis (*Technical Appendix L*) and herein, EMFAC 2014 was run for the MHD and HHD vehicle class within the California sub-area for a 2017 calendar year (consistent with the opening year of the Project). As generated by EMFAC 2014, an aggregated fuel economy of MHD trucks ranging from

model year 1974 to model year 2017 are calculated to have a fuel efficiency of 8.13 MPG. Additionally, HHD trucks are estimated to have a fuel efficiency of 5.70 MPG. Data from EMFAC 2014 is shown in Appendix 3.2 of *Technical Appendix L*. (Urban Crossroads, Inc., 2016d, p. 21)
Fuel consumption from construction vendor trips (medium and heavy duty trucks) would total approximately 47,723 gallons. Project construction vendor trips would represent a "single-event" diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources for this purpose. (Urban Crossroads, Inc., 2016d, p. 22) Refer to Table 4-5 and 4-6 of *Technical Appendix L* for the construction vendor fuel consumption calculations.

D. Energy Use for Project Operation

1. Transportation Energy Demands

Energy that would be consumed by Project-generated traffic is a function of total VMT and estimated vehicle fuel economies of vehicles accessing the Project site. As summarized in Table 5-1, *Project-Generated Traffic Fuel Consumption (All Vehicles)*, Urban Crossroads, Inc. calculates that the Project would result in 24.064,351 annual VMT and an estimated annual fuel consumption of 2,696,114 gallons of fuel. (Urban Crossroads, Inc., 2016d, p. 28 and Table 4-11)

Table 5-1 Project-Generated Traffic Fuel Consumption (All Vehicles)

Vehicle Type	Annual Miles Traveled	Estimated Annual Fuel Consumption (gallons)
Light Duty Autos	7,379,362	280,905
LHD Trucks	3,675,703	287,389
MHD Trucks	2,946,569	362,432
HHD Trucks	10,062,717	1,765,389
Total (All Vehicles)	**24,064,351**	**2,696,114**

(Urban Crossroads, Inc., 2016d, Table 4-11)

Fuel would be provided by commercial vendors. Trip generation and VMT generated by the Project are consistent with other warehouse uses of similar scale and configuration, as reflected in the Institute of Transportation Engineers (ITE) Trip Generation Manual (9th Ed., 2012); and CalEEMod v2013.2.2. That is, the Project does not propose uses or operations that would inherently result in excessive and wasteful vehicle trips and VMT, nor associated excess and wasteful vehicle energy consumption. (Urban Crossroads, Inc., 2016d, p. 30)

Enhanced fuel economies realized pursuant to federal and state regulatory actions, and related transition of LDVs and HDVs to alternative energy sources (e.g., electricity, natural gas, bio fuels, hydrogen cells) would likely decrease future gasoline fuel demands per VMT. Location of the Project proximate to regional and local roadway systems tends to reduce VMT within the region, acting to reduce regional vehicle energy demands. The Project also would implement sidewalks that

would facilitate and encourage pedestrian access and subsequently reduce VMT and associated energy consumption. As supported by the preceding discussions, Project transportation energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary. (Urban Crossroads, Inc., 2016d, p. 30)

Also, depending on the nature of the building occupants' operating characteristics, VMT may actually be reduced as a result of the Project site being located closer to origins and destinations for the building occupant's goods and services. For example, QVC reported in 2015 that its occupancy of a building in the Inland Empire is projected to reduce the company's national trucking VMT by more than 10 million miles annually. (PR Newswire, 2015)

2. Facility Energy Demands

Energy use in buildings is divided into energy consumed by the built environment and energy consumed by uses that are independent of the construction of the building such as in plug-in appliances. In California, the California Building Standards Code Title 24 governs energy consumed by the built environment, mechanical systems, and some types of fixed lighting. Non-building energy use or "plug-in" energy use can be further subdivided by specific end-use (refrigeration, cooking, appliances, etc.). (Urban Crossroads, Inc., 2016d, p. 28)

Project building operations and Project site maintenance activities would result in the consumption of natural gas and electricity. As part of the Project's design, all on-site outdoor cargo handling equipment (CHE) (including yard trucks, hostlers, yard goats, pallet jacks, forklifts, and other on-site equipment) would be powered by diesel-fueled engines that comply with the CARB/USEPA Tier IV Engine standards for off-road vehicles or better (defined as 0.015 g/bhp-hr. for PM_{10}) or better and all on-site indoor forklifts would be powered by electricity, compressed natural gas, or propane. (Urban Crossroads, Inc., 2016d, p. 1)

Natural gas would be supplied to the Project by The Gas Company and electricity would be supplied to the Project by Southern California Edison (SCE). Annual natural gas and electricity demands of the Project are summarized in Table 5-2, *Project Annual Operational Energy Demand Summary*. As shown in Table 5-2, Project facility operational energy demands are estimated at 2,142,900 kBTU/year of natural gas and 4,381,622 kWh/year of electricity. (Urban Crossroads, Inc., 2016d, p. 30 and Table 4-12)

Energy efficiency/energy conservation attributes of the Project would be complemented by increasingly stringent state and federal regulatory actions addressing vehicle fuel economies and vehicle emissions standards; and enhanced building/utilities energy efficiencies mandated under California building codes (e.g., Title 24, California Green Building Code). In this latter regard, pursuant to the County of Riverside's Screening Table for Greenhouse Gas Implementation Measures, several project design features would be implemented that reduce energy associated with the building envelope, indoor space efficiencies, irrigation and landscaping, potable water use,

Table 5-2 Project Annual Operational Energy Demand Summary

Natural Gas Demand	kBTU/year
Parking Lot	0
Unrefrigerated Warehouse	2,142,900
Total Project Natural Gas Demand	**2,142,900 kBTU/year**

Electricity Demand	kWh/year
Parking Lot	727,232
Unrefrigerated Warehouse	3,654,390
Total Project Electricity Demand	**4,381,622 kWh/year**

(Urban Crossroads, Inc., 2016d, Table 4-12)

employment and trip reductions beyond existing requirements. A summary of the measures that would be incorporated into the project design are summarized in Table 4-13 of the Project's Energy Analysis *(Technical Appendix L*). (Urban Crossroads, Inc., 2016d, p. 28)

The Project proposes conventional warehouse uses reflecting contemporary energy efficient/energy conserving designs and operational programs. Uses proposed by the Project are not inherently energy intensive, and the Project energy demands in total would be comparable to, or less than, other warehouse projects of similar scale and configuration. Based on the preceding, Project facilities energy demands and energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary. (Urban Crossroads, Inc., 2016d, p. 30)

E. Energy Consumption Summary

Project design features, mandatory compliance with CalGreen, and the implementation of the mitigation measures contained in the site-specific Air Quality Impact Analysis (T*echnical Appendix B1*), Mobile Source Diesel Health Risk Assessment (*Technical Appendix B2)*, and the Greenhouse Gas Analysis (*Technical Appendix F*), demonstrate evidence of the Project's efficient use of energy. The Project would provide for, and promote, energy efficiencies beyond those required under other applicable federal or State of California standards and regulations; therefore, the Project would meet or exceed all CalGreen regulations. Moreover, energy consumed by the Project is calculated by Urban Crossroads, Inc. to be comparable to, or less than, energy consumed by other warehouse uses of similar scale and intensity than are currently constructed and operating in California. On this basis, the Project would not result in the inefficient, wasteful, or unnecessary consumption of energy. Furthermore, the Project would not cause or result in the need for additional energy facilities or energy delivery systems. (Urban Crossroads, Inc., 2016d, pp. 1-2)

As supported by the preceding analyses, Project construction and operations would not result in the inefficient, wasteful or unnecessary consumption of energy. Further, the energy demands of the

Project can be accommodated within the context of available resources and energy delivery systems. The Project would therefore not cause or result in the need for additional energy producing or transmission facilities. The Project would not engage in the wasteful or inefficient uses of energy and the Project aims to achieve energy conservation goals within the State of California. Thus, the Project would not have any long-term effects on an energy providers' future energy development or energy conservation strategies. (Urban Crossroads, Inc., 2016d, p. 31)

5.5 EFFECTS FOUND NOT TO BE SIGNIFICANT AS PART OF THE INITIAL STUDY PROCESS

CEQA Guidelines § 15128 requires that an EIR:

> *"…contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR."*

An Initial Study was prepared for the proposed Project, which is included as *Technical Appendix A* to this EIR. Through the Initial Study process, the County of Riverside determined that the proposed Project could potentially cause adverse effects, and an EIR is required. One (1) environmental subject was determined by the County to have no potential to be significantly impacted by the Project, as concluded by the Project's Initial Study. Therefore, this issue area is not required to be discussed in Section 4.0, *Environmental Analysis*, of this EIR. A brief summary of the one (1) issue found not to be significant is presented below, with a more detailed analysis provided in the Project's Initial Study contained in *Technical Appendix A.*

A. Mineral Resources

The proposed Project is not located within an area known to be underlain by regionally-or locally important mineral resources or within an area that has the potential to be underlain by regionally or locally important mineral resources, as disclosed by the Riverside County General Plan. Accordingly, implementation of the proposed Project would not result in the loss of availability of a known mineral resource that would be of value to the region or the residents of the State of California. Accordingly, impacts to the environmental issue of Mineral Resources would not occur.

6.0 ALTERNATIVES TO THE PROPOSED PROJECT

CEQA Guidelines §15126.6(a) describes the scope of analysis that is required when evaluating alternatives to proposed projects, as follows:

> *"An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible. The lead agency is responsible for selection of a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason."*

As discussed in Section 4.0, *Environmental Analysis*, the proposed Project would result in significant adverse environmental effects that cannot be mitigated to below levels of significance after the implementation of Project design features, mandatory regulatory requirements, and feasible mitigation measures. The unavoidable significant impacts are:

- Air Quality - Significant and Unavoidable Direct and Cumulatively Considerable Impact. There are no feasible mitigation measures to eliminate or offset the Project's inconsistency with SCAQMD's 2012 AQMP due to exceedance of the SCAQMD emissions thresholds.

- Air Quality - Significant and Unavoidable Direct and Cumulatively Considerable Impact. Even after the application of feasible mitigation measures, the Project's VOCs and NO_X daily operational emissions would exceed the SCAQMD's significance thresholds. Emissions of NO_X are primarily a result of mobile source emissions (i.e., vehicles traveling to and from the Project site), which are regulated by state and federal emissions and fuel use standards, and beyond the direct control of the Project Applicant and/or future users of the Project site's buildings.

- Land Use and Planning – Significant and Unavoidable Direct and Cumulatively Considerable Impact. The Project would develop the subject property with two business park warehouse buildings and associated site improvements, including, but not limited to, surface parking areas, vehicle drive aisles, truck courts, utility infrastructure, landscaping, exterior lighting, signage, walls and fencing, and water quality/detention basins. The changes to the Project site represent a substantial alteration to the site's present land use. Construction and operation of two business center buildings on the property would result in significant effects to the

environment that cannot be reduced to less-than-significant levels through the application of feasible mitigation.

- Noise (Traffic Related) – Significant and Unavoidable Direct Impact. No feasible mitigation measures are available to reduce the Project's transportation-related noise impacts along the Oleander Avenue segments west of Harvill Avenue and east of the Project's Driveway #6 under Existing + Project and Project Opening Year 2017 conditions. Although noise levels along the affected segments of Oleander Avenue would not exceed the County's 65 dBA CNEL standard for noise-sensitive uses, the Project's contribution to existing noise levels would represent a substantial noise increase over existing conditions, and residential structures would be affected. The affected residential parcels are non-conforming and designated by the Riverside County General Plan for "Business Park" land uses. By the Year 2035, the Project's contribution of transportation-related noise along the above-listed segments of Oleander Avenue would be reduced to less than significant levels, because as ambient traffic volumes increase on the road, the Project's overall percentage of the noise contribution would diminish. Although the Project's noise impact would be significant and unavoidable, the impact would be less than significant by the Year 2035.

- Transportation (Local Roadway System) - Significant and Unavoidable Cumulatively Considerable Impact. The Project Applicant would pay development impact fees and participate in fair share funding programs to mitigate the Project's direct and cumulative impacts to the local roadway network. However, several of the needed transportation improvements are either funded by existing mitigation funding programs (including TUMF) with no timetable for construction (meaning the necessary improvements may not be in place when the Project becomes operational and starts to contribute traffic to the facilities), or the improvements are not included in any existing mitigation funding program (therefore, there is no mechanism currently available for development projects to contribute toward the construction of needed improvements, and thus no assurance that the improvements would be implemented). Accordingly, the Project's cumulatively considerable impacts to four (4) intersections in the Existing + Ambient Growth + Project + Cumulative (E+A+P+C) analysis scenario are concluded to be unavoidable. The affected intersections are: 1) Ellsworth Street / Oleander Avenue; 2) Harvill Avenue / Harley Knox Boulevard; 3) I-215 Southbound Ramps / Harley Knox Boulevard; and 4) I-215 Northbound Ramps / Harley Knox Boulevard.

- Transportation (State Highway System) – Significant and Unavoidable Cumulatively Considerable Impact. The Project would contribute traffic to the state highway system, which is under the jurisdiction of Caltrans. As such, the County of Riverside cannot assure the construction of improvements to state highway facilities. Furthermore, Caltrans does not have funding mechanism in place to allow development projects to contribute fair-share payments. Although a mitigation measure is recommended that requires the Project Applicant to offer fair share fee contributions to Caltrans to fund improvements to state highway system facilities that the Project's traffic would impact, there is no assurance that Caltrans will develop a fee

program and implement the improvements prior to the time that the Project begins to contribute traffic to the facilities. Accordingly, the Project's contribution of traffic to the state highway system facilities under E+A+P+C and/or Horizon Year (2035) conditions is concluded to be a significant and unavoidable cumulative impact.

6.1 ALTERNATIVES UNDER CONSIDERATION

CEQA Guidelines § 15126.6(e) requires that an EIR include an alternative that describes what would reasonably be expected to occur on the property in the foreseeable future if the Project were not approved, based on current plans and consistent with available infrastructure and community services (i.e., "no project" alternative). For development projects that include a revision to an existing land use plan, the "no project" alternative is considered to be the continuation of the existing land use plan into the future. For projects other than a land use plan (for example, a development project on an identifiable property), the "no project" alternative is considered to be a circumstance under which the project does not proceed (CEQA Guidelines § 15126(e)(3)(A-B). For the alternatives analysis in this EIR, the potential scenario where the Project does not proceed is considered to be the "No Development Alternative," while the potential scenario where the existing land use plan is continued into the future is considered to be the "No Project Alternative / Existing General Plan Designation Alternative."

The following scenarios are identified by the County of Riverside as potential alternatives to implementation of the proposed Project.

6.1.1 NO PROJECT/NO DEVELOPMENT ALTERNATIVE

The No Project/No Development Alternative considers no development/disturbance on the Project site beyond that which occurs under existing conditions. As such, the entire 58.6-acre site would remain vacant and undeveloped with exception of the southwestern portion of the Building D Site which contains a mobile home, outbuildings, and a concrete pad that is used for the storage of construction equipment. The undeveloped portions of the Project site would continue to be regularly maintained for weed abatement and wildfire suppression purposes. Under this alternative, no improvements would be made to the Project site and none of the Project's roadway, utility and other infrastructure improvements would occur. This alternative was selected by the Lead Agency to compare the environmental effects of the proposed Project with an alternative that would leave the property in its existing condition.

Because this alternative would avoid all of the Project's impacts, it warrants consideration as the "environmentally superior alternative." However, pursuant to CEQA Guidelines § 15126.6(e)(2), if a no project alternative is identified as the "environmentally superior alternative" then the EIR shall also identify an environmentally superior alternative among the other alternatives. The Building D Only Alternative, as described in Subsection 6.1.3, below, is identified as the "environmentally superior alternative."

6.1.2 NO PROJECT / EXISTING GENERAL PLAN DESIGNATION ALTERNATIVE

The No Project/Existing General Plan Alternative considers development of the Project site with a mixture of uses that are in conformance with the Project site's existing Riverside County General Plan and Mead Valley Area Plan land use designation and applicable policies. As previously shown on Figure 2-2, *Existing General Plan Land Use Designations*, the majority of the Building D Site is designated for "Community Development–Light Industrial (CD-LI)" land uses and the southwest portion of the Building D Site is designated for "Community Development-Business Park (CD-BP)" land uses. The entirety of the Building E Site is designated for "Community Development-Business Park (CD-BP)" land uses. The "Community Development–Light Industrial (CD-LI)" land use designation allows for industrial and related uses including warehousing/distribution, assembly and light manufacturing, repair facilities, and supporting retail uses with a building intensity range from a minimum 0.25 floor-to-area ratio (FAR) to a maximum building intensity of 0.60 FAR. The "Community Development-Business Park (CD-BP)" land use designation allows for employee-intensive uses, including research & development, technology centers, corporate offices, clean industry, and supporting retail uses with a building intensity range from a minimum of 0.25 FAR to a maximum building intensity of 0.60 FAR.

For analysis purposes, the areas designated "Community Development–Light Industrial (CD-LI)" under existing conditions are assumed to be developed with one 558,000 s.f. general warehouse building with surface parking lot on approximately 1,224,171 s.f. of building area (28.1 acres) for a FAR of 0.46. The areas designated "Community Development-Business Park (CD-BP)" are assumed to be developed with four buildings comprised of approximately 550,000 s.f. of building area and surface parking lots on approximately 1,353,275 s.f. of building area (31.0 acres) to house employee-intensive uses such as allowed by the "Community Development-Business Park (CD-BP)" land use designation for a FAR of 0.41.

This alternative was selected to compare the environmental effects of the proposed Project with a land use scenario comprised of a land use mixture that is planned for the property by the Riverside County General Plan.

6.1.3 BUILDING D ONLY ALTERNATIVE – THE ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Under the Building D Only Alternative, the Building D Site would be developed as described in Subsection 3.3.1 "Building D Applications" of EIR Section 3.0, *Project Description*. Building D would contain 702,645 s.f. of building space, including 677,645 s.f. of warehouse floor space, 15,000 s.f. of ground floor office space, and 10,000 s.f. of mezzanine office space. There would be 54 loading docks on the west side of the building and 55 docks on the east side of the building (109 total docks). No development would occur on the Building E Site. The Building E Site would remain vacant and would be regularly maintained for weed abatement and wildfire suppression purposes. This alternative was selected by the Lead Agency to compare the environmental effects of the proposed Project with an alternative that would pursue development on only the eastern portion of the Project site, in a location east of Ellsworth Street.

The Building D Alternative would not meet Project Objective B and Objective G and would only partially meet Objectives A, C, D, E, and F. Because this alternative would physically disturb less land and a lesser amount of building space would be constructed by eliminating development on the Building E Site, thereby generating less traffic and vehicular and operational-related effects, This alternative is considered to be environmentally superior to the proposed Project. In addition, because this alternative would reduce all of the Project's impacts to a greater degree than the other alternatives evaluated herein, pursuant to CEQA Guidelines § 15126.6, the Building D Only Alternative is identified as the "environmentally superior alternative."

6.1.4 REDUCED PROJECT / TRUCK TRAILER STORAGE ALTERNATIVE

Under the Reduced Project / Truck Trailer Storage Alternative, the Building D Site would be developed as described in Subsection 3.3.1 "Building D Applications" of EIR Section 3.0, *Project Description*. Building D would contain 702,645 s.f. of building space, including 677,645 s.f. of warehouse floor space, 15,000 s.f. of ground floor office space, and 10,000 s.f. of mezzanine office space. There would be 54 loading docks on the west side of the building and 55 docks on the east side of the building (109 total docks). The Building E Site would be developed as a truck trailer parking yard to service the building constructed on the Building D Site. This alternative was selected by the Lead Agency to compare the environmental effects of the proposed Project with an alternative that would allow an intensification of surface parking to accommodate a building user that requires a substantial amount of on-site truck trailer storage parking space.

6.1.5 LARGER BUILDING ALTERNATIVE

Under the Larger Building Alternative, a 1,250,000 s.f. high cube warehouse building would be constructed on the Building D Site and the Building E Site, spanning the two areas. The segment of Ellsworth Street that segregates the two Sites would be vacated as a public right-of-way to allow for construction of the building. There would be 125 loading docks on the north side of the building and 125 loading docks on the south side of the building (150 total docks). This alternative was selected by the Lead Agency to compare the environmental effects of the proposed Project with an alternative that would allow for the construction of a larger building, with approximately the same amount of building space that would be provided by proposed Building D and Building E combined.

6.2 ALTERNATIVES CONSIDERED AND REJECTED

An EIR is required to identify any alternatives that were considered by the Lead Agency but were rejected as infeasible. Among the factors described by CEQA Guidelines § 15126.6 in determining whether to exclude alternatives from detailed consideration in the EIR are: a) failure to meet most of the basic project objectives, b) infeasibility, or c) inability to avoid significant environmental impacts. With respect to the feasibility of potential alternatives to the proposed Project, CEQA Guidelines § 15126.6(f) (1) notes:

"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 proponent can reasonably acquire, control or otherwise have access to the alternative site…"

In determining an appropriate range of alternatives to be evaluated in this EIR, alternative sites were considered and, for a variety of reasons, rejected. Two other alternatives, a trailer truck parking alternative, and a larger Building E alternative were considered but rejected from consideration. Alternatives can be dismissed from analysis because either: 1) they could not accomplish the basic objectives of the Project, 2) they would not have resulted in a reduction of significant adverse environmental impacts, or 3) they were considered infeasible to construct or operate. A summary of the alternatives that were considered but rejected from further evaluation are described below.

6.2.1 TRAILER TRUCK PARKING ALTERNATIVE

An alternative that contemplated using the entire Building D Site and Building E Site for truck trailer parking and storage was considered by the County of Riverside but rejected from further consideration because such an alternative would not meet the Project's objectives. A truck trailer parking alternative would not result in developing vacant or underutilized property in Mead Valley with Class A business park warehouse buildings, would not make efficient use of a property by maximizing its buildout potential for employment-generating uses, would not attract new employment-generating businesses along the I-215 corridor, and would not help to provide a more equal jobs-housing balance in Riverside County. In addition, a truck trailer storage yard would be less economically feasible to construct and operate and would bring fewer, if any, direct and indirect economic benefits to the County and surrounding area. A large truck trailer parking yard also has the potential to be incompatible with the character of the surrounding community, which includes business park buildings, vacant land, and rural residential homes and business enterprises.

6.2.2 LARGER BUILDING E ALTERNATIVE

An alternative that contemplated a larger Building E and a larger Building E Site footprint for the development and operation of one high-cube warehouse on the Building E Site was considered by the County of Riverside but rejected from further consideration because such an alternative would result in the need for a change to the General Plan Foundation Component for a portion of the larger Building E Site. The Larger Building E Alternative was filed by the Project Applicant in 2015, processed by the County of Riverside, and then reduced in size to the currently-proposed Project in February 2017. The NOP for this EIR was based on the larger Building E Alternative.

Compared to the proposed Project, the Larger Building E Alternative includes an additional 12.1 acres of land to the west of the Building E Site, a portion of which is designated "Rural Community-Very Low Density Residential (RC-VLDR)" by the Riverside County General Plan. The Larger Building E Alternative would have required a change to the General Plan Foundation Component to change the existing land use designation from "Rural Community-Very Low Density Residential (RC-VLDR) to

"Community Development-Light Industrial (CD-LI)." Also, the additional land west of the Building E Site is zoned "Light Agriculture (A-1-1)" under existing conditions. Therefore, this alternative also would require a Change of Zone application to change that portion of the property zoned "Light Agriculture (A-1-1)" so that the entire Project site would be zoned "Industrial Park (I-P)."

6.2.3 ALTERNATIVE SITES

CEQA does not require that an EIR always include an analysis of alternative sites. However, if the surrounding circumstances make it reasonable to consider an alternative site then the alternative should be considered and analyzed in the EIR. In making the decision to include or exclude analysis of an alternative site, the "*key question and first step in analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need to be considered for inclusion in the EIR*" (CEQA Guidelines § 15126.6(f) (2)).

Under existing conditions, the approximately 58.6-acre Project site is vacant and undeveloped with exception of a mobile home, outbuildings, and a concrete pad that is used for the storage of construction equipment on the southwestern portion of the Building D Site. Nearly the entire property has been previously disturbed either by past activities associated within installation of the off-site water tank, or by on-going weed abatement. The Project site does not contain any ornamental landscaping and the vegetation that exists on the property is mostly characterized by ruderal plants and weeds. An ephemeral drainage is located on the site that does not connect to navigable waters and is dominated by upland vegetation. The Project site is located within the I-215 corridor, which over the past decade has been transitioning into an important industrial and economic center for Riverside County and the nearby cities of Perris, Moreno Valley, and Riverside.

Lands north of the Project site are largely undeveloped, with exception of a recently-constructed industrial warehouse building located north of Oleander Avenue and east of Harvill Avenue. To the south of the Project site are scattered, rural residences and business ventures, and undeveloped land. Near the southwest corner of the Project site is a water tank owned by the Eastern Municipal Water District (EMWD). To the west of the Project site are undeveloped lands, beyond which are single family homes. To the east of the Project site are undeveloped lands, several scattered single family residences, and an industrial warehouse building located along the eastern edge of Harvill Avenue. Approximately 0.4 miles to the east is I-215, beyond which are the March Air Reserve Base (MARB) and an area of the City of Moreno Valley mostly developed with industrial warehouse buildings. Based on review of aerial photography, the Riverside County General Plan Land Use Map, and a list of approved/pending development proposals in the nearby areas of unincorporated Riverside County, the City of Moreno Valley, City of Perris, and City of Riverside (refer to Figure 4.0-1, *Cumulative Development Location Map*, and Table 4.0-1, *Cumulative Project List*), there are no other available, undeveloped properties of similar size (approximately 58 acres), that the Project Applicant has the reasonable possibility of controlling and that would have fewer developmental and environmental constraints than the Project site evaluated in this EIR.

Development of the Project in an alternate location would have similar impacts as would occur with implementation of the Project at its proposed location, with the potential for greater impacts. All undeveloped land within the surrounding area that is similar in size to the Project site (i.e., approximately 58 acres) that would be available for Community Development-Light Industrial CD-LI) land use and that is not already part of an approved/pending development proposal is located farther from I-215 than the Project site. Therefore, operational impacts associated with traffic and vehicular noise and air emissions would be greater as the vehicles traveling to and from the proposed Project would need to travel farther distances on local roads to reach the state highway system. Therefore, operational impacts associated with traffic and vehicular noise and air emissions would be greater as the vehicles would need to travel farther distances on local roads to reach the state highway system.

In addition, according to SCAG's *Comprehensive Regional Goods Movement Plan and Implementation Strategy*, there is great demand in the SCAG region for warehouse and industrial building space on suitably zoned vacant land (SCAG, 2013, pp. 4-39). Thus, it is likely that selection of an alternative site would not eliminate environmental effects, but merely displace the development activity proposed by the Project to another location resulting in the same or greater environmental effects in the region, given the regional demand for logistics and warehousing space in southern California.

For these reasons, an alternative sites analysis is not required for the proposed Project.

6.3 ALTERNATIVES ANALYSIS

The following discussion compares the impacts of each alternative considered by the Lead Agency with the impacts of the proposed Project, as detailed in Section 4.0, *Environmental Analysis*, of this EIR. A conclusion is provided to indicate if selection of the alternative would result in one of the following: (1) reduction or elimination of the proposed Project's impact, (2) a greater impact than would occur under the proposed Project, (3) the same impact as the proposed Project, or (4) a new impact in addition to the proposed Project's impacts. Table 6-1, *Alternatives to the Proposed Project – Comparison of Environmental Impacts*, at the end of this Section compares the environmental hazard and resource impacts of the alternatives with those of the proposed Project and identifies the ability of each alternative to meet the basic objectives of the Project.

The underlying purpose of the proposed Project and the County's primary objective is to entitle property in the Mead Valley community for business park warehouse development to bring new business and jobs to the area. The objectives pertinent to the proposed Project are as follows:

A. To develop vacant or underutilized property in Mead Valley in close proximity to I-215 with business park warehouse buildings offering loading bays that can be used as part of the Southern California goods movement network.

B. To make efficient use of a property in Mead Valley by maximizing its buildout potential for employment-generating uses.

C. To attract new employment-generating businesses along the I-215 corridor thereby growing the economy and providing a more equal jobs-housing balance in the Riverside County/Inland Empire area that will reduce the need for members of the local workforce to commute outside the area for employment.

D. To develop Class A business park warehouse buildings in Mead Valley that meet industry standards for modern, operational design criteria and can accommodate a wide variety of users.

E. To develop vacant or underutilized property in Mead Valley with structures that have architectural design and operational characteristics that complement other new developments in the immediate vicinity.

F. To develop business park warehouse buildings that are economically competitive with similar buildings in the local area and region.

6.3.1 NO PROJECT/NO DEVELOPMENT ALTERNATIVE

The No Project/No Development Alternative considers no development/disturbance on the Project site beyond that which occurs under existing conditions. As such, the entire 58.6-acre site would remain vacant and undeveloped with exception of the southwestern portion of the Building D Site which contains a mobile home, outbuildings, and a concrete pad that is used for the storage of construction equipment. The undeveloped portions of the Project site are regularly maintained for weed abatement and wildfire suppression purposes. Under this alternative, no improvements would be made to the Project site and none of the Project's roadway, utility and other infrastructure improvements would occur. This alternative was selected by the Lead Agency to compare the environmental effects of the proposed Project with an alternative that would leave the property in its existing condition.

A. Aesthetics

The Project site does not contain any unique aesthetic resources, nor does it serve as a prominent scenic vista. The site is mostly vacant and undeveloped with exception of a mobile home, outbuildings, and a concrete pad that is used for the storage of construction equipment on the southwestern portion of the Building D Site. Under the No Project/No Development Alternative, the visual character and quality of the site would be maintained in its existing condition. No structures or landscaping would be introduced on the property beyond that which occurs under existing conditions. Selection of the No Project/No Development Alternative would result in no impact to scenic resources, community character, or light and glare, because no development would occur. The proposed Project's impacts would be less-than-significant. Buildout of the Building D Site and Building E Site as proposed by the Project would create a business park with two buildings in a contemporary architectural design that

would be landscaped and served by improved roadways along the property's street frontages. In these regards, the proposed Project would have a higher aesthetic value than this alternative.

In conclusion, the proposed Project would result in less-than-significant aesthetic impacts. This alternative would result in no aesthetic impacts; thus, the Project's less-than-significant aesthetic impacts would be avoided.

B. Agriculture and Forest Resources

No forestry resources are located on the Project site or in the immediate vicinity of the Project site. Therefore, neither the proposed Project nor this alternative would impact forest resources.

There are no lands currently used for commercial agricultural purposes on the Project site or in the area immediately surrounding the Project site. According to the State's Farmland Mapping and Monitoring Program (FMMP) Farmlands Map, no portions of the Project site contain Prime Farmland, Farmland of Statewide Importance, or Unique Farmland ("Farmland"). According to the CDC classifications, the portion of the Project site that is designated Farmland of Local Importance likely carries this designation because the soils in this area are capable of agricultural production, but the property has never been used for agriculture and lacks available irrigation water for use in agricultural crop production. In addition, most of this area contains soils that have Storie Index Grades of 3, 4, or 5, which indicates that these soils have severe limitations for agricultural use. Because no evidence exists that the Project site was ever used for agricultural use, the site is not surrounded by lands under active agricultural production, and the majority of the Project site is not suitable for productive farmland according to the land capability classification of the USDA Storie Index, it is highly unlikely that the Project site would ever be used for agricultural purposes under the No Project/No Development Alternative. For these reasons, impacts to agricultural resources would be the same under this alternative as they would be for the proposed Project. With mandatory compliance to Ordinance No. 625, as would be required by the County, Project impacts would be less than significant.

In conclusion, the proposed Project would result in less-than-significant agriculture impacts and no impacts to forest resources. This alternative would result in no agriculture impacts and no forest resource impacts; thus, the Project's less-than-significant agriculture impacts would be avoided.

C. Air Quality

Under the No Project/No Development Alternative, no development would occur on the Project site; therefore, there would be no potential sources of short-term (construction) or long-term (operational) air pollutant emissions associated with the proposed business park land uses. All of the Project's short- and long-term air quality impacts would be avoided under this alternative. No impacts associated with air quality would occur under this alternative. However, significant and unavoidable operational impacts associated with emissions of VOCs and NOx would occur under the proposed Project, for which feasible mitigation is not available.

Although selection of the No Project/No Development Alternative would prevent the Project site from new development, it would not necessarily prevent the Project or another project of its nature from being developed in another location in response to the demand for warehouse and industrial land use space in western Riverside County. As such, it is possible that selection of the No Project/No Development Alternative would merely displace the Project's air pollutant emissions and significant and unavoidable air quality impacts to another location in the South Coast Air Basin (SCAB) resulting in the same or greater environmental effects to air quality.

In conclusion, the proposed Project would result in significant and unavoidable air quality impacts with mitigation. This alternative would result in no air quality impacts; thus, the Project's significant and unavoidable air quality impacts would be avoided.

D. Biological Resources

The No Project/No Development Alternative would leave the property in its existing condition; however, routine weed abatement (discing) would continue. Although disturbance of the property would occur under this alternative due to mandatory maintenance obligations for weed abatement, impacts would be less than the proposed Project because the property would be disturbed temporarily and periodically as compared to permanent disturbance that would occur as the result of the Project's proposed development. Accordingly, the No Project/No Development Alternative would avoid all of the Project's potential impacts to special-status wildlife species, to protected, nesting migratory birds, and to the ephemeral drainage that occurs on the property. No impacts would occur under this alternative. Less-than-significant impacts with mitigation would occur under the proposed Project.

In conclusion, the proposed Project would result in less-than-significant biological resource impacts with mitigation. This alternative would result in no biological resource impacts; thus, the Project's biological resource impacts would be avoided.

E. Cultural Resources

No known historic resources, unique geological features, or human remains are present on the Project site under existing conditions. Five recorded archaeological sites are recorded on the Project site, of which three sites would be fully impacted and two sites would be partially impacted as a result of the Project. None of the sites meet the definition of a unique or significant resource according to CEQA § 15064.5(a) and there is insufficient substantial evidence to conclude that the sites either individually or collectively when considered in the context of a several mile radius the meet the minimum thresholds under Public Resources Code § 21074(b) to qualify as a recognized TCL or TCR. The No Project/No Development Alternative would avoid the Project's impact to these resources, and also would avoid the possibility of unearthing archaeological, human remain, and tribal cultural resources during the Project's grading operation. While no grading would occur on the Project site under the No Project/No Development Alternative, periodic weed abatement activities would continue, although the depth of discing would be shallow. Therefore, this alternative has no potential to impact subsurface historic,

archeological, human remains, or tribal cultural resources that may exist in undisturbed soils beneath the ground surface.

In conclusion, the proposed Project would result in less-than-significant cultural resource impacts with mitigation. This alternative would result in no cultural resource impacts; thus, the Project's cultural resource impacts would be avoided.

F. Geology and Soils

The No Project/No Development Alternative would result in no grading of the property; therefore, no impacts to geology or soils would occur. Because no new structures would be constructed, there would be no increased risks associated with seismic ground shaking or geologic hazards. No impacts would occur under this alternative. Less-than-significant impacts would occur under the proposed Project.

In conclusion, the proposed Project would result in less-than-significant geology and soils impacts. This alternative would result in no geology and soils impacts; thus, the Project's geology and soils impacts would be avoided.

G. Greenhouse Gas Emissions

Under the No Project/No Development Alternative, no new development would occur on the Project site; therefore, there would be no potential sources of near-term or long-term greenhouse gas (GHG) emissions. Selection of this alternative would avoid all of the proposed Project's near- and long-term effects associated with GHG emissions. No impacts would occur under this alternative. Less-than-significant impacts would occur under the proposed Project with mitigation, because the Project would comply with the Riverside County Climate Action Plan (CAP).

Although selection of the No Project/No Development Alternative would prevent the Project site from new development, it would not necessarily prevent the Project or another project of its nature from being developed in another location in response to the demand for warehouse and industrial land use space in western Riverside County. As such, it is possible that selection of the No Project/No Development Alternative would merely displace the Project's GHG emissions to another location in the SCAB resulting in the same or greater environmental effects.

In conclusion, the proposed Project would result in less-than-significant greenhouse gas emissions impacts with mitigation. This alternative would result in no on-site related greenhouse gas emissions impacts; thus, the Project's on-site related impacts would be avoided.

H. Hazards and Hazardous Materials

Because no development would occur under the No Project/No Development Alternative, no impacts related to hazards or hazardous materials would occur. Routine discing would continue to occur on the Project site to remove dry/dead vegetation that has the potential to pose a fire hazard, as required by the Fire Department. Selection of this alternative would avoid the Project's less-than-significant

impacts related to hazards and hazardous materials. Because no development would occur on the property, this alternative would eliminate the possibility of chemical and cleaning agent use on the property that is typical in business park developments. Buildings also would not be built on the site that fall under the review authority of the Riverside County Airport Land Use Commission (ALUC) for the March Air Reserve Base (MARB). No hazard impacts would occur under this alternative. Less-than-significant impacts would occur under the proposed Project, with mandatory compliance to the conditions of approval imposed on the Project by the ALUC.

In conclusion, the proposed Project would result in less-than-significant hazards and hazardous materials impacts. This alternative would result in no hazards and hazardous materials impacts; thus, the Project's hazards and hazardous materials impacts would be avoided.

I. Hydrology and Water Quality

The No Project/No Development Alternative would result in no grading or development of the property; therefore, no impacts to hydrology or water quality would occur. No drainage improvements or water quality features would be installed and runoff would continue to flow off of the site as it does under existing, uncontrolled conditions. The selection of this alternative would avoid the Project's impacts to hydrology and water quality. Erosion and sedimentation may be greater under this alternative, because the site would not receive benefit from the storm water drainage and water quality filtration features proposed by the Project. No impacts would occur under this alternative, although erosion and sedimentation off-site may be greater than would occur under the proposed Project. Less-than-significant impacts with mandatory compliance to regulatory requirements would occur under the proposed Project.

In conclusion, the proposed Project would result in less-than-significant hydrology and water quality impacts. This alternative would result in no hydrology and water quality impacts; thus, the Project's hydrology and water quality impacts would be avoided.

J. Land Use and Planning

The No Project/No Development Alternative would leave the property in its existing condition as vacant, disturbed, mostly undeveloped land and the property would not be developed in accordance with the Riverside County General Plan and Mead Valley Area Plan's vision for developing a majority of the site with employment-generating uses. Although the Project proposes General Plan Amendment and Change of Zone applications on portions of the Project site, selection of the No Project/No Development Alternative would not fulfill Riverside's vision for the subject property. Regardless, no physical effects to the environment would occur from implementation of the No Project/No Development Alternative.

In conclusion, the proposed Project would result in significant and unavoidable land use and planning impacts. This alternative would result in no land use and planning impacts; thus, the Project's land use and planning impacts would be avoided.

K. Noise

Because no development would occur on the Project site under this alternative, no new sources of stationary noise and no new traffic trips would be generated; thus, the No Project/No Development Alternative would not contribute to an incremental increase in area-wide noise levels. Significant and unavoidable noise impacts would occur under the proposed Project because the Project would contribute substantial transportation-related noise compared to existing conditions along Oleander Avenue west of Harvill Avenue and east of the Project's Driveway #6 under near-term conditions. Although adjoining properties are designated for business park development in the long-term, there are several non-conforming homes located along the road. By the Year 2035, the Project's contribution of transportation-related noise along Oleander Avenue would be reduced to less than significant levels, because as ambient traffic volumes increase on the road, the Project's overall percentage of the noise contribution would diminish. Selection of this alternative would avoid all Project-related noise impacts.

In conclusion, the proposed Project would result in significant and unavoidable noise impacts after mitigation. This alternative would result in no noise impacts; thus, the Project's noise impacts would be avoided.

L. Population and Housing

To implement the Project, one mobile home would be removed from the Building D Site. Selection of the No Project/No Development Alternative would retain this home on the property. Neither this alternative nor the proposed Project would displace substantial numbers of existing housing units, people, or create a demand for additional housing. Because this alternative would allow development of the property, no employment opportunities would be created on the property and there would be no potential for indirect population growth, and no provision of jobs for existing residents in the surrounding area. No impacts would occur under this alternative.

In conclusion, the proposed Project would result in less-than-significant population and housing impacts. This alternative would result in no population and housing impacts; thus, the Project's population and housing impacts would be avoided.

M. Public Services

The No Project/No Development Alternative would not result in any development on the property requiring increased fire protection services, sheriff's protection services, and other services such as public schools, libraries, and health services. Compared to the proposed Project, demand would be lessened, although the Project does not result in any significant public service impacts that would be eliminated by the selection of this alternative. Although demands would be greater, the Riverside County Fire Department (RCFD) does not have plans to construct a new fire station or physically expand fire protection facilities in the Project site's vicinity. Similarly, the Riverside County Sheriff's Department (RCSD) does not have plans to construct or expand sheriff facilities. Therefore, the Project would have no physical environmental effects on public service facilities. Increased demand is not an

environmental effect under CEQA. No impacts would occur under the No Project/No Development Alternative. Because no development would occur on the Project site, this alternative would not contribute any payments toward the County's Development Impact Fee (DIF) Ordinance (Riverside County Ordinance No. 659), which the County uses to fund public facility improvements. In addition, no payments would be made under the provisions of California Government Code §§ 65995.5-65998 to the Val Verde Unified School District (VVUSD). Under the proposed Project, the Project Applicant would pay County DIF Ordinance fees and VVUSD fees.

In conclusion, the proposed Project would result in less-than-significant public services impacts. This alternative would result in no public services impacts; thus, the Project's public services impacts would be avoided.

N. Recreation

Because no development would occur on the Project site under this alternative, there would be no impacts to recreational facilities. Similarly, the proposed Project would not physically impact recreational facilities and would not preclude the County's ability to implement a community trail segment along Oleander Avenue, as called for by the MVAP. No impacts would occur under this alternative. Less-than-significant impacts would occur under the proposed Project.

In conclusion, the proposed Project would result in less-than-significant recreation impacts. This alternative would result in no recreation impacts; thus, the Project's recreation impacts would be avoided.

O. Transportation and Traffic

Under the No Development Alternative, no new development would occur on the property and no traffic would be generated. Because there would be no new development on the Project site under this alternative, the significant and unavoidable traffic impacts of the proposed Project would be avoided through selection of the No Project/No Development Alternative. However, because there would be no new development on the Project site under this alternative, no monetary contributions would be made by the Project Applicant to the Riverside County DIF program or the Transportation Uniform Mitigation Fee (TUMF) program to assist in the funding of needed local and regional circulation network improvements. Other fair share fee payments toward needed transportation improvements also would not be made. No transportation impacts would occur from the selection of this alternative. The proposed Project would result in significant and unavoidable cumulatively considerable effects to four (4) local roadway intersections and to state highway facilities under the jurisdiction of Caltrans.

In conclusion, the proposed Project would result in significant and unavoidable transportation and traffic impacts after mitigation. This alternative would result in no transportation and traffic impacts; thus, the Project's transportation and traffic impacts would be avoided.

P. *Utilities and Service Systems*

No additional domestic water or sewer facilities would be needed for the No Project/No Development Alternative, and no domestic water use or wastewater generation increases would occur. Also, this alternative would not generate increases in the demand for electricity, natural gas, transportation fuels, and other forms of energy, or demand for solid waste collection and disposal. Neither the proposed Project nor the No Project/No Development Alternative would result in significant or cumulatively considerable impacts to utilities and service systems. Nonetheless, selection of this alternative would avoid all of the Project's demand placed on utilities and service systems.

In conclusion, the proposed Project would result in less-than-significant utilities and service system impacts. This alternative would result in no utilities and service system impacts; thus, the Project's utilities and service system impacts would be avoided.

Q. *Paleontological Resources*

No known paleontological resources are present on the Project site under existing conditions. The No Project/No Development Alternative would avoid the Project's impact to mapped Quaternary very old alluvial fan sediments in the northeastern corner of the Building D Site that are mapped as having "High B" paleontological sensitivity. (BFSA, 2015b, pp. 2-3) (BFSA, 2015c, pp. 2-3). Because no development would occur, there is no potential for the No Project/No Development Alternative to unearth resources in this area and no mitigation would be required. The Project's potential impact to paleontological resources, in the unlikely event that such resources are unearthed, would be avoided by the selection of this alternative.

In conclusion, the proposed Project would result in less-than-significant paleontological resources impacts after mitigation. This alternative would result in no paleontological resources impacts; thus, the Project's paleontological resources impacts would be avoided.

R. *Conclusion*

The No Project/No Development Alternative would result in no physical environmental impacts to the Project site beyond those that have already occurred on the property and ongoing, required weed abatement. All significant effects of the Project would be avoided or lessened by the selection of the No Project/No Development Alternative. The No Project/No Development Alternative would fail to meet all of the Project's objectives, as indicated in Table 6-1, *Alternatives to the Proposed Project – Comparison of Environmental Impacts* (see the end of this EIR Section).

6.3.2 NO PROJECT / EXISTING GENERAL PLAN DESIGNATION ALTERNATIVE

The No Project/Existing General Plan Alternative considers development of the Project site with a mixture of uses that are in conformance with the Project site's existing Riverside County General Plan and Mead Valley Area Plan land use designation and applicable policies. As previously shown on Figure 2-2, *Existing General Plan Land Use Designations*, the majority of the Building D Site is

designated for "Community Development–Light Industrial (CD-LI)" land uses and the southwest portion of the Building D Site is designated for "Community Development-Business Park (CD-BP)" land uses. The entirety of the Building E Site is designated for "Community Development-Business Park (CD-BP)" land uses. The "Community Development–Light Industrial (CD-LI)" land use designation allows for industrial and related uses including warehousing/distribution, assembly and light manufacturing, repair facilities, and supporting retail uses with a building intensity range from a minimum 0.25 floor-to-area ratio (FAR) to a maximum building intensity of 0.60 FAR. The "Community Development-Business Park (CD-BP)" land use designation allows for employee-intensive uses, including research & development, technology centers, corporate offices, clean industry, and supporting retail uses with a building intensity range from a minimum of 0.25 FAR to a maximum building intensity of 0.60 FAR. To accommodate the "Community Development-Business Park (CD-BP)" land use designation, this alternative would be developed with numerous small buildings on the areas of the Project site that are designated "Community Development-Business Park (CD-BP)". The "Community Development-Business Park (CD-BP)" land uses result in a higher Institute of Transportation of Engineers (ITE) trip generation rate than Community Development-Light Industrial (CD-LI)" land uses.

For analysis purposes, the areas designated "Community Development–Light Industrial (CD-LI)" under existing conditions are assumed to be developed with one 558,000 s.f. general warehouse building with surface parking lot on approximately 1,224,171 s.f. of building area (28.1 acres) for a FAR of 0.46. The areas designated "Community Development-Business Park (CD-BP)" are assumed to be developed with four buildings comprised of approximately 550,000 s.f. of building area and surface parking lots on approximately 1,353,275 s.f. of building area (31.0 acres) to house employee-intensive uses such as allowed by the "Community Development-Business Park (CD-BP)" land use designation for a FAR of 0.41.

This alternative was selected to compare the environmental effects of the proposed Project with a land use scenario comprised of a land use mixture that is planned for the property by the Riverside County General Plan.

A. Aesthetics

The Project site does not contain any unique aesthetic resources, nor does it serve as a prominent scenic vista. Under the No Project/Existing General Plan Designation Alternative, the visual character and quality of the site would be more varied than what would occur under the proposed Project, although it is assumed that the site would be master-planned and have a cohesive design. Under this alternative, the building to be constructed on the land designated for "Community Development-Light Industrial (CD-LI)" would have similar mass and bulk to that of the proposed Project. The four buildings that would be constructed in the area of the Project site designated as "Community Development-Business Park (CD-BP) land uses would be substantially smaller in mass and bulk to the two buildings proposed by the Project. The selection of this alternative would result in similar aesthetic effects associated with changes to existing visual quality, character, and the introduction of light and glare sources. Therefore, under both this alternative and the proposed Project, aesthetic impacts would be less than significant.

In conclusion, the proposed Project would result in less-than-significant aesthetic impacts. This alternative would result in the same less-than-significant aesthetic impacts.

B. Agriculture and Forest Resources

No forestry resources are located on the Project site or in the immediate vicinity of the Project site. Therefore, neither the proposed Project nor this alternative would impact forest resources.

Because no evidence exists that the Project site was ever used for agricultural use, the site is not surrounded by lands under active agricultural production, and the majority of the Project site is not suitable for productive farmland according to the land capability classification of the USDA Storie Index, it is highly unlikely that the Project site would ever be used for agricultural purposes under the No Project/Existing General Plan Land Use Alternative. For these reasons, impacts to agricultural resources would be the same under this alternative as they would be for the proposed Project. With mandatory compliance to Ordinance No. 625, as would be required by the County, impacts would be less than significant.

In conclusion, the proposed Project would result in less-than-significant agriculture impacts and no impacts to forest resources. This alternative would result in the same less-than-significant agriculture impacts and no impacts to forest resources. Thus, the Project's impacts would not be reduced or avoided.

C. Air Quality

Under this alternative, the construction schedule would likely be more intense on a daily basis than would occur under the proposed Project because the multiple buildings could be constructed simultaneously, whereas the proposed Project would construct Building D and Building E serially. As such, total daily emissions during construction activities on the Project site would be increased as compared to the proposed Project's daily emissions reported in Subsection 4.3 of this EIR. Therefore, it is possible that emissions of VOC, NOx, and particulate matter could not be feasibly mitigated under this alternative to a less-than-significant level. Therefore, this alternative would result in increased construction-related air quality impacts as compared to the proposed Project and air quality impacts under this alternative would likely be significant and unavoidable.

Because the No Project/Existing General Plan Designation Alternative would generate a substantial amount more traffic than the proposed Project (approximately 8,016 daily vehicle trips as compared to the proposed Project's 2,115 daily trips), mobile source air emissions would be substantially increased by the selection of this alternative. None of the Project's significant air quality impacts would be avoided and the Project's significant and unavoidable impacts associated with VOC and NOx emissions also would be increased by nearly 400 percent. In addition, the VOC and NO_X emissions would cumulatively contribute to an existing air quality violation in the SCAB (i.e., NOx and O_3 concentrations, which do not meet regional attainment status). Due to the substantial increase in

vehicle trips, the selection of this alternative also has the potential to result in increased diesel particulate matter (DPM) emissions; however, with feasible restrictions placed on on-site operating equipment, it is unlikely that the more severe impacts associated with DPM would exceed the SCAQMD's significance threshold of 10 in one million.

In conclusion, the proposed Project would result in significant and unavoidable air quality impacts with mitigation. This alternative would result in greater air quality impacts; thus, the Project's significant and unavoidable air quality impacts would not be reduced or avoided.

D. Biological Resources

Because the No Project/Existing General Plan Designation Alternative would disturb the same amount of land as the proposed Project, all of the potential impacts to sensitive species would remain the same.

E. Cultural Resources

No known historic resources, unique geological features, or human remains are present on the Project site under existing conditions. Because the No Project/Existing General Plan Designation Alternative would disturb the same amount of land as the proposed Project, all of the potential impacts to cultural resources would remain the same.

F. Geology and Soils

Because the No Project/Existing General Plan Designation Alternative would result in the same amount of ground-disturbing physical impacts, impacts to geology and soils would be the same as those described in EIR Subsection 4.6, *Geology and Soils*.

G. Greenhouse Gas Emissions

Because the No Project/Existing General Plan Designation Alternative would generate substantially more traffic than the proposed Project (approximately 8,016 daily vehicle trips as compared to the proposed Project's 2,115 daily trips), mobile source greenhouse gas (GHG) emissions would be substantially increased by the selection of this alternative. Because the No Project/Existing General Plan Designation Alternative is not designed, it is speculative to conclude whether or not this alternative would be able to achieve at least 100 points (equivalent to an approximate 15% reduction in GHG emissions) on the Riverside County Climate Action Plan's (CAP's) Screening Tables. The proposed Project would achieve the 100 points with mitigation and result in a less-than-significant impact. In comparison, this alternative would generate more GHG emissions and may or may not be able to reduce its effects to less than significant levels.

In conclusion, the proposed Project would result in less-than-significant greenhouse gas emissions impacts with mitigation. This alternative would result in greater greenhouse gas emissions impacts; thus, the Project's greenhouse gas emissions impacts would be increased, and would not be reduced or avoided.

H. Hazards and Hazardous Materials

Because the No Project/Existing General Plan Designation Alternative would house similar types of building occupants as the Project, the potential for hazards and hazardous materials would be similar to the Project. Potential construction-related hazards and hazardous materials impacts would also be similar. As with the proposed Project, mandatory compliance to federal, state, and local regulations during construction and long-term operation would ensure that the proposed development would not create a significant hazard to the environment due to routine transport, use, disposal, or upset of hazardous materials. Assuming mandatory compliance with standard ALUC conditions of approval, the building that would be constructed on the portion of the site designated Community-Development-Light Industrial (CD-LI)" under the No Project/Existing General Plan Designation Alternative would have the same building height range as proposed by the Project, which was determined by the Riverside County Airport Land Use Commission (ALUC) to be consistent with the restrictions and requirements of the March ARB/IPA Compatibility Plan. Similarly, the buildings that would be constructed on the portion of the site designated for "Community-Development-Business Park (CD-BP)" land uses would also be required to be consistent with the restrictions and requirements of the March ARB/IPA Compatibility Plan. Thus, impacts associated with hazards and hazardous materials would be the same as the proposed Project. Impacts associated with hazards and hazardous materials would be less than significant under this alternative and the proposed Project.

In conclusion, the proposed Project would result in less-than-significant hazards and hazardous materials impacts. This alternative would result in the same hazards and hazardous materials impacts; thus, the Project's hazards and hazardous materials impacts would be reduced or avoided.

I. Hydrology and Water Quality

The No Project/Existing General Plan Designation Alternative would have a near-identical drainage system design. Neither the proposed Project nor the No Project/Existing General Plan Designation Alternative would result in substantial alterations to the drainage pattern of the site or would result in substantial erosion effects (with mandatory compliance with a Storm Water Pollution Prevention Plan (SWPPP). Accordingly, implementation of either the proposed Project or this alternative would result in less-than-significant impacts to existing drainage patterns. Similar to the proposed Project, this alternative would require compliance with a site-specific Water Quality Management Plan (WQMP) and its associated Best Management Practices (BMPs.) Therefore, implementation of this alternative would result in less-than-significant water quality impacts with compliance to a SWPPP and a site-specific WQMP and its associated BMPs and result in similar impacts as would the proposed Project.

In conclusion, the proposed Project would result in less-than-significant hydrology and water quality impacts. This alternative would result in the same hydrology and water quality impacts; thus, the Project's hydrology and water quality impacts would not be reduced or avoided.

J. Land Use and Planning

The No Project/Existing General Plan Designation Alternative would not require a General Plan Amendment or a Change of Zone. There would be no change to the planned land uses of the site. Regardless, the No Project/Existing General Plan Designation Alternative would result in a substantial alteration to the Project site's existing land use and would result in the same significant and unavoidable land use and planning impacts as the proposed Project, as described in EIR Subsection 4.10, *Land Use and Planning.*

In conclusion, the proposed Project would result in significant and unavoidable land use and planning impacts. This alternative would result in the same land use and planning impacts; thus, the Project's land use and planning impacts would not be reduced or avoided.

K. Noise

As with the proposed Project, noise associated with this alternative would occur during near-term construction activities and under long-term operation. Under this alternative, the construction schedule would likely be more intense on a daily basis than would occur under the proposed Project because the multiple buildings could be constructed simultaneously, whereas the proposed Project would construct Building D and Building E serially; therefore, it is likely that short-term construction noise would be increased under this alternative versus the proposed Project. However, because the same type of construction activities would occur as a result of this alternative, short-term construction impacts under this alternative would be significant and direct, the same as the proposed Project. Also, because the No Project/Existing Plan General Plan Designation Alternative would generate substantially more traffic than the proposed Project (approximately 8,016 daily vehicle trips as compared to the proposed Project's 2,115 daily trips), vehicular noise would be substantially increased by the selection of this alternative. Long-term operational noise generated by this alternative would be associated with substantially more vehicles traveling to and from the Project Site and on-site vehicle idling, maneuvering, and parking. In addition, the contribution of traffic noise levels along Oleander Avenue would be substantially greater under this alternative. Thus, long-term operational impacts related to traffic would be greater under this alternative than under the proposed Project.

In conclusion, the proposed Project would result in significant and unavoidable noise impacts after mitigation. This alternative would result in greater noise impacts; thus, the Project's noise impacts would not be reduced or avoided.

L. Population and Housing

The No Project/Existing General Plan Land Use Designation Alternative would construct a similar amount of building space as the proposed Project; however, because the "Community Development-Business Park (CD-BP)" land uses under this alternative would consist of employee-intensive uses, including research & development, technology centers, corporate offices, clean industry, and supporting retail uses, this alternative has the potential to result in the demand for additional employees generated by the Community Development-Business Park (CD-BP) land uses. Nonetheless, these

would not be skilled trade jobs that would require the relocation of people to fill the jobs. Therefore, this alternative would result in less-than-significant impacts associated with population and housing.

In conclusion, the proposed Project would result in less-than-significant population and housing impacts. This alternative would have the same level of impact; thus, the Project's population and housing impacts would not be reduced or avoided.

M. Public Services

Because the No Project/Existing General Plan Designation Alternative would construct approximately the same amount of building space as the proposed Project's business park uses, approximately the same amount of demand would be placed on public service providers. As described in EIR Subsection 4.13, *Public Services,* increased demand is not an environmental effect under CEQA, and no physical impacts to public service facilities would occur. Impacts would be the same under this alternative as they would be for the proposed Project. Less-than-significant impacts would occur under the proposed Project and this alternative.

In conclusion, the proposed Project would result in less-than-significant public services impacts. This alternative would result in the same level of public services impacts; thus, the Project's public services impacts would not be reduced or avoided.

N. Recreation

Neither the proposed Project nor the No Project/Existing General Plan Designation Alternative would physically impact recreational facilities. Also, neither the proposed Project nor the No Project/Existing General Plan Designation Alternative would preclude the County's ability to implement a community trail segment along Oleander Avenue, as called for by the MVAP. Impacts would be the same under this alternative as they would be for the proposed Project. Less-than-significant impacts would occur under the proposed Project and this alternative.

In conclusion, the proposed Project would result in less-than-significant recreation impacts. This alternative would result in the same recreation impacts; thus, the Project's recreation impacts would not be reduced or avoided.

O. Transportation

The No Project/Existing General Plan Designation Alternative would generate approximately 8,016 daily vehicle trips. These trips are calculated by applying the Institute of Transportation Engineers (ITE) industrial code to 558,000 square of light industrial development (yielding 4,016 trips), the ITE warehouse code to 550,000 of general warehouse use (yielding 3,950 trips). This calculates to approximately 3.7 times the amount of traffic that would be generated by the proposed Project. Under both this alternative and the proposed Project, there would be significant and unavoidable cumulatively considerable effects to four (4) local roadway intersections and to state highway facilities under the jurisdiction of Caltrans. Under this alternative, these and likely many more transportation facilities

would be significantly impacted. Thus, impacts associated with Project-generated traffic would be substantially increased by the selection of this alternative.

In conclusion, the proposed Project would result in significant and unavoidable transportation and traffic impacts after mitigation. This alternative would result in more traffic and greater transportation and traffic impacts; thus, the Project's transportation and traffic impacts would be increased.

P. *Utilities and Service Systems*

Because the No Project/Existing General Plan Designation Alternative would construct approximately the same amount of building space as proposed by the Project, a similar amount of water demand, wastewater generation, electricity, natural gas, and solid waste generation would occur as discussed in EIR Subsection 4.16, *Utilities and Service Systems*. This alternative would result in more fuel use (energy) demand as a result of the substantially higher number of daily traffic trips that would be generated under this alternative. Also, the same connections to existing water, sewer and storm drainage systems would be required. Neither the proposed Project nor the No Project/Existing General Plan Designation Alternative would result in significant or cumulatively considerable impacts to utilities and service systems.

In conclusion, the proposed Project would result in less-than-significant utilities and service system impacts. This alternative would result in the same utilities and service system impacts; thus, the Project's utilities and service system impacts would not be reduced or avoided.

Q. *Paleontological Resources*

No known paleontological resources are present on the Project site under existing conditions. The northeastern corner of the Building D Site is mapped as having "High B" paleontological sensitivity. Because this alternative would disturb the same amount of land, potential impacts to paleontological resources would be the same as the proposed Project. (BFSA, 2015b, pp. 2-3) (BFSA, 2015c, pp. 2-3).

In conclusion, the proposed Project would result in less-than-significant paleontological resources impacts after mitigation. This alternative would result in the same paleontological resources impacts; thus, the Project's paleontological resources impacts would not be reduced or avoided.

R. *Conclusion*

Selection of the No Project/Existing General Plan Designation Alternative would result in similar impacts as would occur under the proposed Project to the topics of aesthetics, agricultural and forestry resources, biological resources, cultural resources, geology/soils, hazards and hazardous materials, hydrology and water quality, land use and planning, population and housing, public services, recreation, and paleontological resources as the proposed Project. Because the "Community Development-Business Park (CD-BP)" land use under this alternative would consist of employee-intensive uses, including research & development, technology centers, corporate offices, clean

industry, and supporting retail uses, this alternative could result in the demand for additional housing for the additional employees generated by the "Community Development-Business Park (CD-BP) land uses. In addition, because this alternative would generate approximately 3.7 times more traffic than the proposed Project, increased impacts would occur in the areas of short-term construction and long-term transportation and vehicular-related air emissions, GHG emissions, short-term and long-term noise, and traffic/transportation. In summary, no environmental effects of the Project would be reduced by the selection of this alternative and many environmental effects would be increased.

The No Project/Existing General Plan Designation Alternative would meet Project objectives B, C, and E by developing the site with employment generating uses. This alternative would partially meet the Project's other objectives, A, D, and F except for the fact that the site would not be developed entirely with business park warehouse buildings under this alternative. Regardless of its ability to meet or partially meet the Project's objectives, this alternative would not result in any environmental advantages, and would increase impacts to the environment in terms of air quality, greenhouse gas emissions, noise, and traffic impacts. Because this alternative would result in greater impacts to air quality, greenhouse gas emissions, noise, and transportation and traffic, this alternative is not considered to be environmentally superior to the proposed Project.

6.3.3 BUILDING D ONLY ALTERNATIVE – THE ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Under this alternative, the Building D Site would be developed as described in Subsection 3.3.1 "Building D Applications" of EIR Section 3.0, *Project Description*. Building D would contain 702,645 s.f. of building space, including 677,645 s.f. of warehouse floor space, 15,000 s.f. of ground floor office space, and 10,000 s.f. of mezzanine office space. There would be 54 loading docks on the west side of the building and 55 docks on the east side of the building (109 total docks). No development would occur on the Building E Site. The Building E Site would remain vacant and would be regularly maintained for weed abatement and wildfire suppression purposes. Oleander Road and Ellsworth Street would be improved along the frontage of the Building D Site; no roadway frontage improvements would occur abutting the Building E Site. This alternative was selected by the Lead Agency to compare the environmental effects of the proposed Project with an alternative that would pursue development on only the eastern portion of the Project site, and east of Ellsworth Street.

Because this alternative would reduce all of the Project's impacts to a greater degree than the other alternatives evaluated herein, pursuant to CEQA Guidelines § 15126.6, it is identified as the "environmentally superior alternative."

A. Aesthetics

The Project site does not contain any unique aesthetic resources, nor does it serve as a prominent scenic vista. Under the Building D Only Alternative, the visual character and quality of the Building E Site would be maintained in its existing condition. No structures or landscaping would be introduced on the Building E Site beyond that which occurs under existing conditions. The Building D Site would be developed as described in EIR Section 3.0, *Project Description,* and evaluated throughout this EIR.

The selection of this alternative would result in fewer aesthetic effects associated with changes to existing visual quality, character, and the introduction of light and glare sources, because only approximately half of the Project site would be developed with one building as compared to the entire Project site developed with two buildings as proposed by the Project. Under either this alternative or the proposed Project, aesthetic impacts would be less-than-significant. Buildout of the Building D Site would develop one building in a contemporary architectural design that would be landscaped and served by improved roadways along the property's street frontages.

In conclusion, the proposed Project would result in less-than-significant aesthetic impacts. This alternative would result in fewer aesthetic impacts; thus, the Project's less-than-significant aesthetic impacts would be reduced.

B. Agriculture and Forest Resources

No forestry resources are located on the Project site or in the immediate vicinity of the Project site. Therefore, neither the proposed Project nor this alternative would impact forest resources.

Because no evidence exists that the Project site was ever used for agricultural use, the site is not surrounded by lands under active agricultural production, and the majority of the Project site is not suitable for productive farmland according to the land capability classification of the USDA Storie Index, it is highly unlikely that the Project site would ever be used for agricultural purposes under the Building D Alternative. The selection of this alternative would place less business park development within 300 feet of off-site property zoned for agricultural use, although those off-site properties are not currently used for any agricultural purposes. Under this alternative, the Project's less-than-significant impact (placement of uses within 300 feet of property zoned for agriculture) would be reduced.

In conclusion, the proposed Project would result in less-than-significant agriculture impacts and no impacts to forest resources. This alternative would result in fewer agriculture impacts and no forest resource impacts; thus, the Project's less-than-significant agriculture impacts would be reduced.

C. Air Quality

Under this alternative, the construction schedule would be reduced as compared to the proposed Project because only one building would be constructed instead of two buildings. As such, construction-related air quality emissions would occur over a slightly shorter period of time. Total daily emissions during construction activities on the Building D Site would be the same as the proposed Project's daily emissions reported in Subsection 4.3 of this EIR. Therefore, air quality pollutant emissions associated with short-term construction would be identical between the proposed Project and the Building D Only Alternative. With mitigation, these impacts would be reduced to below a level of significance.

Because the Building D Only Alternative would construct 410,982 s.f. less building space than proposed by the Project, the Alternative would produce a concomitant reduction in traffic compared to the proposed Project and require a concomitant reduction of energy use. Under the Building D Only

Alternative, 1,181 daily vehicle trips would be generated, including 731 passenger cars and 450 trucks. As such, mobile source and energy source air emissions would be reduced by approximately 44% (934 daily vehicle trips ÷ 2,115 daily vehicle trips = 44%) compared to the Project. None of the Project's significant air quality impacts would be avoided and the Project's significant and unavoidable impacts associated with VOC and NOx emissions also would not be eliminated. After the application of design features, mandatory regulatory requirements, and feasible mitigation measures, the Building D Only Alternative's long-term operational-related VOC and NOx emissions would still exceed the SCAQMD numerical thresholds for daily emissions. In addition, the VOC and NOx emissions would cumulatively contribute to an existing air quality violation in the SCAB (i.e., NOx and O_3 concentrations, which do not meet regional attainment status).

The Project would result in DPM exposure to the maximally exposed residential receiver, worker, and school child below the SCAQMD's significance threshold of 10 in one million. Thus, the Project's impacts associated with the exposure of sensitive receptors to substantial pollutant concentrations would be less than significant. Because the Building D Only Alternative would generate less traffic than the Project and use fewer pieces of on-site diesel fueled equipment than the proposed Project, there would be a concomitant reduction in DPM emissions at the Project site, which would further reduce the Project's less-than-significant impact.

In conclusion, the proposed Project would result in significant and unavoidable air quality impacts with mitigation. This alternative would result in fewer air quality impacts; thus, the Project's significant and unavoidable air quality impacts would be reduced.

D. Biological Resources

The Building D Only Alternative would permanently impact the Building D Site, while the Building E Site would remain in its existing condition and continue to be subject to mandatory weed abatement (i.e., discing). Although the Building D Site Only Alternative would permanently impact a smaller portion of the subject property than the Project, this alternative would be subject to the same regulatory requirements and mitigation measures as the Project to reduce impacts to less-than-significant levels. Under the Building D Only Alternative, impacts to the ephemeral drainage feature that would occur on the Building E Site under the proposed Project (0.11-acre (690 linear feet)) would be avoided, and fees would not be paid to the Riverside Corona Resource Conservation District in-lieu fee program, or comparable program, to compensate for that impact. Also, because less of the Project site would be developed under the Building D Only Alternative, smaller fee amounts would be paid under the Western Riverside County MSHCP Fee Program Ordinance and the Stephens' Kangaroo Rat (SKR) Mitigation Fee Ordinance.

In conclusion, the proposed Project would result in less-than-significant biological resource impacts with mitigation. This alternative would result in fewer biological resource impacts; thus, the Project's biological resource impacts would be reduced.

E. Cultural Resources

No known historic resources, unique geological features, or human remains are present on the Project site under existing conditions. Five recorded archaeological sites are recorded on the Project site, of which three sites would be fully impacted and two sites would be partially impacted as a result of the Project. The Building D Only Alternative would permanently impact only two of the recorded sites, Site RIV-8401 (as single milling feature) and Site SV RIV-8402 (four milling slicks on three granitic outcrops). Although the Building D Site Only Alternative would permanently impact a smaller portion of the subject property than the Project, and thus have a lower probability of unearthing significant archaeological resources that may be buried, this alternative would be subject to the same regulatory requirements and mitigation measures as the Project to reduce impacts to less-than-significant levels.

In conclusion, the proposed Project would result in less-than-significant cultural resource impacts with mitigation. This alternative would result in fewer cultural resource impacts; thus, the Project's cultural resource impacts would be reduced.

F. Geology and Soils

The Building D Only Alternative would result in grading less of the property than would occur under the proposed Project; therefore, fewer potential impacts to geology or soils would occur. Because only one structure would be built instead of two structures, there would be fewer increased risks to new construction associated with seismic ground shaking or geologic hazards. Thus, this alternative would reduce but not avoid the Project's other less-than-significant impacts associated with geology and soils.

In conclusion, the proposed Project would result in less-than-significant geology and soils impacts. This alternative would result in fewer geology and soils impacts; thus, the Project's geology and soils impacts would be reduced.

G. Greenhouse Gas Emissions

The Building D Only Alternative would involve the construction and operation of 702,645 s.f. of building space, which would generate approximately 1,181 actual daily vehicle trips vehicle trips (not adjusted for PCE). Mobile-source (i.e., vehicle-related) emissions account for approximately 84.5 percent of the Project's greenhouse gas (GHG) emissions (refer to Table 4.7-5, *Project Greenhouse Gas Emissions*, in EIR Subsection 4.7). Therefore, due to the reduction in the amount of actual daily vehicle trips associated with this alternative (approximately 934 fewer actual daily vehicle trips than the Project), the Building D Only Alternative would substantially reduce the Project's mobile source GHG emissions. Additionally, because this alternative would involve less building area, non-mobile source operational GHG emissions (fossil fuel use for building operation) also would be reduced under this alternative. Regardless, both the proposed Project and this alternative would result in less-than-significant GHG emission impacts with mitigation, because development under either scenario would achieve at least 100 points (equivalent to an approximate 15% reduction in GHG emissions) on the Riverside County Climate Action Plan's Screening Tables, therefore, neither the proposed Project or this alternative would - conflict with the County of Riverside's CAP or with the State's ability to

achieve the reduction targets defined in Assembly Bill 32 (AB 32). Although fewer GHG emissions would be generated by selection of the Building D Only Alternative, both the Project and this alternative would result in less-than-significant impacts.

In conclusion, the proposed Project would result in less-than-significant greenhouse gas emissions impacts with mitigation. This alternative would result in fewer greenhouse gas emissions impacts; thus, the Project's greenhouse gas emissions impacts would be reduced.

H. Hazards and Hazardous Materials

The Building D Only Alternative would attract the same types of building occupants as the Project; therefore, the potential for hazards and hazardous materials associated with this alternative would be similar to the Project, although the potential for the use and storage of hazardous materials common in business park development would occur over a smaller physical area. Potential construction-related hazards and hazardous materials impacts would be reduced under this alternative due to the reduction of the physical area proposed for development. As with the proposed Project, mandatory compliance to federal, state, and local regulations during construction and long-term operation would ensure that the proposed development would not create a significant hazard to the environment due to routine transport, use, disposal, or upset of hazardous materials. Assuming mandatory compliance with standard ALUC conditions of approval, the buildings constructed under the Building D Only Alternative would have the same building heights as proposed by the Project, which were determined by the Riverside County Airport Land Use Commission (ALUC) to be consistent with the restrictions and requirements of the March ARB/IPA Compatibility Plan. Impacts would be less than significant under both the proposed Project and the Building D Only Alternative.

In conclusion, the proposed Project would result in less-than-significant hazards and hazardous materials impacts. This alternative would result in fewer hazards and hazardous materials impacts; thus, the Project's hazards and hazardous materials impacts would be reduced.

I. Hydrology and Water Quality

Although the Building D Only Alternative would disturb a smaller physical area than the proposed Project, neither the proposed Project nor the Building D Only Alternative would result in substantial alterations to the drainage pattern of the site or would result in substantial erosion effects (with mandatory compliance with a Storm Water Pollution Prevention Plan (SWPPP). Accordingly, implementation of either the proposed Project or this alternative would result in less-than-significant impacts to existing drainage patterns. In the long-term, potential hydrology and water quality effects on the undeveloped Building E Site would be identical to existing conditions. On the developed, Building D Site portion of the property, this alternative would introduce a business park site, which would result in the potential for urban pollutants to be carried off-site by storm water runoff. However, like the proposed Project, this alternative would require compliance with a site-specific Water Quality Management Plan (WQMP) and its associated Best Management Practices (BMPs.) Therefore, implementation of this alternative would result in less-than-significant impacts with compliance to a

SWPPP and a site-specific WQMP and its associated BMPs and result in similar impacts as would the proposed Project, although over a smaller land area. Erosion and sedimentation may be greater under this alternative associated with the undeveloped Building E Site, because the site would not receive benefit from the storm water drainage and water quality filtration features proposed by the Project.

In conclusion, the proposed Project would result in less-than-significant hydrology and water quality impacts. This alternative would result in fewer hydrology and water quality impacts; thus, the Project's hydrology and water quality impacts would be reduced.

J. Land Use and Planning

Under this alternative, the Building D Site would be developed with 702,645 s.f. of building space, while no development would occur on the Building E Site. Under existing conditions, the Building D Site is designated "Community Development-Light Industrial (CD-LI)" and "Community Development-Business Park (CD-BP)" by the Riverside County General Plan. A General Plan Amendment would change the land use designation of the portion of the property designated CD-BP to CD-LI so that the entire Building D Site is designated CD-LI. Also, a Change of Zone would be required to change the zoning designation on the portions of the property zoned "Manufacturing – Medium (M-M)" and "Rural Residential (R-R)" to "Industrial Park (I-P)." As discussed in EIR Subsection 4.10, *Land Use and Planning*, development on the Building D Site, considering the design features proposed, would result in a substantial change to the planned land use of the area; but, would be compatible with surrounding zoning and land uses and would not result in significant environmental effects associated with the land use and zoning designation changes. The Building D Only Alternative would leave the Building E Site in its existing condition as vacant, disturbed, mostly undeveloped land, which means that the Building E Site would not be developed in accordance with the Riverside County General Plan and Mead Valley Area Plan's vision for developing a majority of the site with employment-generating uses. Under both the proposed Project and this alternative, land use and planning impacts would be significant and unavoidable; however, impacts under this alternative would be reduced as compared to the proposed Project because this alternative would retain the Building E Site in its existing condition.

In conclusion, the proposed Project would result in significant and unavoidable land use and planning impacts. This alternative would result in fewer land use and planning impacts; thus, the Project's land use and planning impacts would be reduced.

K. Noise

As with the proposed Project, noise associated with this alternative would occur during near-term construction activities and under long-term operation. The Building D Only Alternative would have the same ground-disturbing physical impacts as the proposed Project on the Building D Site, which is the portion of the Project site nearest to the most noise-sensitive receptors. Therefore, noise associated with short-term construction activities would be similar between the proposed Project and this alternative, although the duration of construction activities would be shorter. Building construction

activities would be less intense under this alternative, and would result in less noise impacts than the Project, due to the smaller building area.

Similar to the proposed Project, under long-term operations, noise generated by this alternative would be associated with vehicles traveling to and from the Building D Site and on-site vehicle idling, maneuvering and parking. This alternative would generate fewer vehicle trips than would be generated by the proposed Project and therefore would generate less vehicle-related noise than the Project. Although contributions to traffic noise levels along Oleander Avenue would be less under this alternative, they would not be reduced to below a level of significance. Significant and unavoidable noise impacts would occur under the proposed Project and under this alternative in the near-term because substantial transportation-related noise would be contributed compared to existing conditions along Oleander Avenue between Ellsworth Street and Harvill Avenue. The Project's noise impacts along Oleander Avenue, west of Ellsworth Street, would be eliminated by this alternative because no development on the Building E Site, west of Ellsworth Street, would occur. The Building D Only Alternative would therefore reduce but not avoid the Project's significant and unavoidable short-term transportation related noise impact.

In conclusion, the proposed Project would result in significant and unavoidable noise impacts after mitigation. This alternative would result in fewer noise impacts; thus, the Project's noise impacts would be reduced.

L. Population and Housing

To implement either the proposed Project or this alternative, one mobile home would be removed from the Building D Site. Neither this alternative nor the proposed Project would displace substantial numbers of existing housing units, people, or create a demand for additional housing. Because this alternative develop only the Building D Site portion of the property, fewer employment opportunities would be created as compared to the Project, reducing the potential for indirect population growth. Less-than-significant impacts would occur under either the proposed Project or the Building D Only Alternative.

In conclusion, the proposed Project would result in less-than-significant population and housing impacts. This alternative would result in fewer population and housing impacts; thus, the Project's population and housing impacts would be reduced.

M. Public Services

The Building D Only Alternative would result in less development on the Project site as compared to the proposed Project, which would be less direct demand on fire protection services, sheriff's protection services, and less indirect demand other services such as public schools, libraries, and health services. Compared to the proposed Project, demand would be lessened, although the Project would not result in any significant public service impacts that would be eliminated by the selection of this alternative. The Riverside County Fire Department (RCFD) does not have plans to construct a new

fire station or physically expand fire protection facilities in the Project site's vicinity. Similarly, the Riverside County Sheriff's Department (RCSD) does not have plans to construct or expand sheriff facilities. Therefore, neither the Building D Only Alternative nor the proposed Project would have physical environmental effects on public service facilities. Increased demand is not an environmental effect under CEQA. Because no development would occur on the Building E Site, this alternative would contribute a lesser payment amount toward public services that are funded by the County's Development Impact Fee (DIF) Ordinance (Riverside County Ordinance No. 659). In addition, a lower fee payment would be made under the provisions of California Government Code §§ 65995.5-65998 to the Val Verde Unified School District (VVUSD).

In conclusion, the proposed Project would result in less-than-significant public services impacts. This alternative would result in fewer public services impacts; thus, the Project's public services impacts would be reduced.

N. Recreation

Neither the proposed Project nor the Building D Only Alternative would physically impact recreational facilities. Also, neither the proposed Project nor the Building D Only Alternative would preclude the County's ability to implement a community trail segment along Oleander Avenue, as called for by the MVAP. Less-than-significant impacts would occur under the proposed Project and this alternative.

In conclusion, the proposed Project would result in less-than-significant recreation impacts. This alternative would result in fewer recreation impacts; thus, the Project's utilities and service system impacts would be avoided.

O. Transportation

The Building D Only Alternative is estimated to generate approximately 1,181 actual vehicle trips on a daily basis (utilizing the ITE trips generation rates for high-cube warehouse uses, not adjusted for PCE). For comparison purposes, the proposed Project would generate approximately 2,115 actual vehicle trips on a daily basis (not adjusted for PCE). Although less traffic would be generated, the significant and unavoidable traffic impacts of the proposed Project would not be avoided through selection of the Building D Only Alternative. Also, because less building square footage would be developed, a lower monetary contribution would be made by the Project Applicant to the Riverside County DIF program and the Transportation Uniform Mitigation Fee (TUMF) program to assist in the funding of needed local and regional circulation network improvements. Other fair share fee payments toward needed transportation improvements also would be less. Under both the proposed Project and this alternative, there would be significant and unavoidable cumulatively considerable effects to four (4) local roadway intersections and to state highway facilities under the jurisdiction of Caltrans.

In conclusion, the proposed Project would result in significant and unavoidable transportation and traffic impacts after mitigation. This alternative would result fewer transportation and traffic impacts; thus, the Project's noise impacts would be reduced.

P. *Utilities and Service Systems*

This alternative represents a 410.982 s.f. reduction in building space as compared to the proposed Project. As such, water demand, wastewater generation, electricity, natural gas, fuel use (energy) demand, and solid waste generation would be reduced, compared to the proposed Project. Nonetheless, the same types of connections to existing water, sewer and storm drainage systems would be required. Neither the proposed Project nor the Building D Only Alternative would result in significant or cumulatively considerable impacts to utilities and service systems.

In conclusion, the proposed Project would result in less-than-significant utilities and service system impacts. This alternative would result in fewer utilities and service system impacts; thus, the Project's utilities and service system impacts would be reduced.

Q. *Paleontological Resources*

Under the Building D Only Alternative, the same potential impacts to paleontological resources would occur as would occur under the proposed Project because the only area of the Project site that may contain such resources is located on the Building D Site portion of the property. Paleontological resource impact potential would be identical under this alternative and the proposed Project.

In conclusion, the proposed Project would result in less-than-significant paleontological resources impacts after mitigation. This alternative would result in the same paleontological resources impacts; thus, the Project's paleontological resources impacts would not be reduced or avoid.

R. *Conclusion*

Selection of the Building D Only Alternative would reduce, but not avoid the Project's significant unavoidable impacts to air quality, land use and planning, noise, and transportation. The Building D Only Alternative would result in similar less-than-significant impacts to aesthetics, agricultural and forestry resources, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, population and housing, public services, recreation, and utilities and service systems as the proposed Project. However, the Project's impacts under all of these topics would be reduced with selection of the Building D Only Alternative because less land would be physically disturbed and less building space would be constructed, which would result in generating less traffic and vehicular- and operational-related effects.

The Building D Alternative would fail to meet most of the Project's objectives, specifically, this alternative would not meet Objective B and Objective G and would only partially meet Objectives A, C, D, E, and F. Most particularly, because the Building D Only Alternative would leave an entire parcel vacant and unproductive, this alternative would provide fewer economic opportunities, job growth, and generate less tax revenue for the County of Riverside. In addition, the selection of this alternative, while preventing full development of the property with business park uses, would not satisfy demand for logistics business park development in the SCAG region to the same extent as the

proposed Project. Thus, the regional demand for logistics buildings and the environmental effects associated with the development of these uses would very likely be displaced to other properties.

Although this alternative would fail to meet most of the Project's Objectives, because this alternative would physically disturb less land and less building space would be constructed, thereby generating less traffic and vehicular and operational-related effects, it is considered to be environmentally superior to the proposed Project.

6.3.4 REDUCED PROJECT / TRUCK TRAILER STORAGE ALTERNATIVE

Under this alternative, the Building D Site would be developed as described in Subsection 3.3.1 "Building D Applications" of EIR Section 3.0, Project *Description*. Building D would contain 702,645 s.f. of building space, including 677,645 s.f. of warehouse floor space, 15,000 s.f. of ground floor office space, and 10,000 s.f. of mezzanine office space. There would be 54 loading docks on the west side of the building and 55 docks on the east side of the building (109 total docks). The Building E Site would be developed as a truck trailer parking yard to service the building constructed on the Building D Site. This alternative was selected by the Lead Agency to compare the environmental effects of the proposed Project with an alternative that would allow an intensification of surfacing parking to accommodate a building user that requires a substantial amount of on-site truck trailer storage space.

A. Aesthetics

The Project site does not contain any unique aesthetic resources, nor does it serve as a prominent scenic vista. Under the Reduced Project/Truck Trailer Storage Alternative, the visual character and quality of the Building E Site would be changed from undeveloped land to a truck trailer parking lot and storage area. The Building D Site would be developed as described in EIR Section 3.0, *Project Description*, and evaluated throughout this EIR. The selection of this alternative would result in similar aesthetic effects associated with changes to existing visual quality, character, and the introduction of light and glare sources, but slightly less than would occur under the proposed Project because only one building would be erected as compared to two buildings as proposed by the Project. Under both this alternative and the proposed Project, aesthetic impacts would be less-than-significant. Buildout of the Building D Site would develop one building in a contemporary architectural design that would be landscaped and served by improved roadways along the property's street frontages. The Building E Site would be fenced, and truck trailers would be visible on the site as compared to a building that would be visible under the proposed Project.

In conclusion, the proposed Project would result in less-than-significant aesthetic impacts. This alternative would result similar aesthetic impacts; thus, the Project's less-than-significant aesthetic impacts would not be reduced or avoided.

B. Agriculture and Forest Resources

No forestry resources are located on the Project site or in the immediate vicinity of the Project site. Therefore, neither the proposed Project nor this alternative would impact forest resources.

Because no evidence exists that the Project site was ever used for agricultural use, the site is not surrounded by lands under active agricultural production, and the majority of the Project site is not suitable for productive farmland according to the land capability classification of the USDA Storie Index, it is highly unlikely that the Project site would ever be used for agricultural purposes under the Reduced Project/Truck Trailer Storage Alternative. For these reasons, impacts to agricultural resources would be the same under this alternative as they would be for the proposed Project. With mandatory compliance to Ordinance No. 625, as would be required by the County, impacts would be less than significant.

In conclusion, the proposed Project would result in less-than-significant agriculture impacts and no impacts to forest resources. This alternative would result in the same agriculture impacts and no forest resource impacts; thus, the Project's less-than-significant agriculture impacts would not be reduced or avoided.

C. *Air Quality*

Under this alternative, the construction schedule would be reduced as compared to the proposed Project because only one building and a large truck trailer storage lot would be constructed instead of two buildings. The construction of parking lot involves less intense construction activity than does the construction of a building. As such, construction-related air quality emissions would occur over a slightly shorter period of time. Total daily emissions during construction activities on the Project site would be the same as the proposed Project's daily emissions reported in Subsection 4.3 of this EIR. Therefore, air quality pollutant emissions associated with short-term construction would be identical between the proposed Project and the Reduced Project/Truck Trailer Storage Alternative. With mitigation, these impacts would be reduced to below a level of significance.

Because the Reduced Project/Truck Trailer Storage Alternative would construct410,982 s.f. less building space than proposed by the Project, the Alternative would produce a concomitant reduction in traffic compared to the proposed Project and require a concomitant reduction of energy use. The truck trailer storage yard would be used by the building on the Building D Site and would not independently attract traffic. Under the Reduced Project/Truck Trailer Storage Alternative, 1,181 daily vehicle trips would be generated, including 731 passenger cars and 450 trucks. As such, mobile source and energy source air emissions would be reduced by approximately 44% compared to the Project. None of the Project's significant air quality impacts would be avoided and the Project's significant and unavoidable impacts associated with VOC and NOx emissions also would not be eliminated. After the application of design features, mandatory regulatory requirements, and feasible mitigation measures, the Reduced Project/Truck Trailer Storage Alternative's long-term operational-related VOC and NOx emissions would still exceed the SCAQMD numerical thresholds for daily emissions. In addition, the VOC and NOx emissions would cumulatively contribute to an existing air quality violation in the SCAB (i.e., NOx and O_3 concentrations, which do not meet regional attainment status).

The Project would result in DPM exposure to the maximally exposed residential receiver, worker, and school child below the SCAQMD's significance threshold of 10 in one million. Thus, the Project's

impacts associated with the exposure of sensitive receptors to substantial pollutant concentrations would be less than significant. Because the Reduced Project/Truck Trailer Storage Alternative would generate less traffic than the proposed Project, there would be a concomitant reduction in DPM emissions at the Project site, which would further reduce the Project's less-than-significant impact.

In conclusion, the proposed Project would result in significant and unavoidable air quality impacts with mitigation. This alternative would result in fewer air quality impacts; thus, the Project's significant and unavoidable air quality impacts would be reduced, but not avoided.

D. Biological Resources

Because the Reduced Project/Truck Trailer Storage Alternative would have the same ground-disturbing physical impacts as the proposed Project, impacts to biological resources would be identical as described in EIR Subsection 4.4, *Biological Resources*.

E. Cultural Resources

Because the Reduced Project/Truck Trailer Storage Alternative would have the same ground-disturbing physical impacts and depth of grading as the proposed Project, impacts to cultural resources would be identical as described in EIR Subsection 4.5, *Cultural Resources.*

F. Geology and Soils

Because the Reduced Project/Truck Trailer Storage Alternative would have the same ground-disturbing physical impacts and depth of grading as the proposed Project, impacts to geology and soils would be nearly identical to those described in EIR Subsection 4.6, *Geology and Soils*. However, because only one structure would be built instead of two structures, there would be fewer increased risks to new construction associated with seismic ground shaking or geologic hazards. Less-than-significant impacts would occur under this alternative and under the proposed Project.

In conclusion, the proposed Project would result in less-than-significant geology and soils impacts. This alternative would result in the same geology and soils impacts; thus, the Project's geology and soils impacts would be reduced.

G. Greenhouse Gas Emissions

The Reduced Project/Truck Trailer Storage Alternative would involve the construction and operation of 702,645 s.f. of building space, which would generate approximately 1,181 actual daily vehicle trips vehicle trips (not adjusted for PCE). Mobile-source (i.e., vehicle-related) emissions account for approximately 84.5 percent of the Project's greenhouse gas (GHG) emissions (refer to Table 4.7-5, *Project Greenhouse Gas Emissions*, in EIR Subsection 4.7). Therefore, due to the reduction in the amount of actual daily vehicle trips associated with this alternative (approximately 934 fewer actual daily vehicle trips than the Project), the Reduced Project/Truck Trailer Storage Alternative would substantially reduce the Project's mobile source GHG emissions. Additionally, because this alternative

would involve less building area, non-mobile source operational GHG emissions (fossil fuel use for building operation) also would be reduced under this alternative. The truck trailer parking yard on the Building E Site would serve the building on the Building D Site and would not independently generate vehicle trips. Both the proposed Project and this alternative would result in less-than-significant GHG emission impacts, because development under either scenario would achieve at least 100 points (equivalent to an approximate 15% reduction in GHG emissions) on the Riverside County Climate Action Plan's (CAP's) Screening Tables; therefore, with mitigation that requires CAP compliance, neither the proposed Project or this alternative would conflict with the County of Riverside's CAP or with the State's ability to achieve the reduction targets defined in Assembly Bill 32 (AB 32). Although fewer GHG emissions would be generated by selection of the Reduced Project/Truck Trailer Storage Alternative, both the proposed Project and this alternative would result in less-than-significant impacts.

In conclusion, the proposed Project would result in less-than-significant greenhouse gas emissions impacts with mitigation. This alternative would result in fewer greenhouse gas emissions impacts; thus, the Project's greenhouse gas emissions impacts would be reduced.

H. Hazards and Hazardous Materials

The Reduced Project/Truck Trailer Storage Alternative would attract the same types of building occupants as the Project on the Building D Site; therefore, the potential for hazards and hazardous materials associated would be similar to the Project. Although the potential for the use and storage of hazardous materials common in business park development would mostly occur on the Building D Site, truck trailer fuel has the potential to be stored on the Building E Site in association with the truck trailer parking yard. Potential construction-related hazards and hazardous materials impacts would be slightly reduced under this alternative due to a less intense construction process required for a trailer yard on the Building E Site as compared to what is required to construct a building. As with the proposed Project, mandatory compliance to federal, state, and local regulations during construction and long-term operation would ensure that the proposed development would not create a significant hazard to the environment due to routine transport, use, disposal, or upset of hazardous materials. Assuming mandatory compliance with standard ALUC conditions of approval, the building constructed under the Reduced Project/Truck Trailer Storage Alternative on the Building D Site would have the same building height as proposed by the Project, which was determined by the Riverside County Airport Land Use Commission (ALUC) to be consistent with the restrictions and requirements of the March ARB/IPA Compatibility Plan. Impacts would be less than significant under both the proposed Project and the Reduced Project/Truck Trailer Storage Alternative.

In conclusion, the proposed Project would result in less-than-significant hazards and hazardous materials impacts. This alternative would result in fewer hazards and hazardous materials impacts; thus, the Project's hazards and hazardous materials impacts would be reduced.

I. Hydrology and Water Quality

The Reduced Project/Truck Trailer Storage Alternative would have the same ground-disturbing physical impacts as the proposed Project, attract the same types of building occupants, and have a near-identical drainage system design. Impervious surface coverage also would be approximately the same because the reduction in building coverage on the Building E Site would be offset by increased impervious vehicle parking areas. Neither the proposed Project nor the Reduced Project/Truck Trailer Storage Alternative would result in substantial alterations to the drainage pattern of the site or would result in substantial erosion effects (with mandatory compliance with a Storm Water Pollution Prevention Plan (SWPPP). Accordingly, implementation of either the proposed Project or this alternative would result in less-than-significant impacts to existing drainage patterns. Similar to the proposed Project, this alternative would require compliance with a site-specific Water Quality Management Plan (WQMP) and its associated Best Management Practices (BMPs.) Therefore, implementation of this alternative would result in less-than-significant water quality impacts with compliance to a SWPPP and a site-specific WQMP and its associated BMPs and result in similar impacts as would the proposed Project.

In conclusion, the proposed Project would result in less-than-significant hydrology and water quality impacts. This alternative would result in the same hydrology and water quality impacts; thus, the Project's hydrology and water quality impacts would not be reduced or avoided.

J. Land Use and Planning

The Reduced Project/Truck Trailer Storage Alternative would require the same General Plan Amendment and Change of Zone application requests that are under consideration for the proposed Project. The construction of a building on the Building D Site and a truck trailer parking yard on the Building E Site would result in a substantial alteration to the existing land uses on the Project site; but, considering the design features proposed by the Project and the design features that would be expected of a truck trailer parking yard (fencing with perimeter landscaping), would not result in a substantial change to the planned land use of the area, would be compatible with surrounding zoning and land uses, and would not result in significant environmental effects associated with the land use and zoning designation changes. However, the establishment of a large truck trailer parking yard on the Building E Site is not necessarily consistent with the Riverside County General Plan and Mead Valley Area Plan's vision for developing a majority of the site with employment-generating uses. Under both the proposed Project and this alternative, land use and planning impacts would be significant and unavoidable.

In conclusion, the proposed Project would result in significant and unavoidable land use and planning impacts. This alternative would result in the same land use and planning impacts; thus, the Project's land use and planning impacts would not be reduced or avoided.

K. Noise

As with the proposed Project, noise associated with this alternative would occur during near-term construction activities and under long-term operation. The Reduced Project/Truck Trailer Storage Alternative would have the same ground-disturbing physical impacts as the proposed Project; therefore, noise associated with short-term construction activities would be similar between the proposed Project and this alternative, although the duration of construction activities would be shorter on the Building E Site because a building would not be erected on that portion of the property.

Similar to the proposed Project, under long-term operations, noise generated by this alternative would be associated with vehicles traveling to and from the Building D Site and on-site vehicle idling, maneuvering and parking on the Building D Site and the Building E Site. This alternative would generate fewer vehicle trips than would be generated by the proposed Project and therefore would generate less vehicle-related noise than the Project. Although contribution to traffic noise levels along Oleander Avenue would be less under this alternative, they would not be reduced to below a level of significance. Significant and unavoidable noise impacts would occur under the proposed Project and under this alternative in the near-term because substantial transportation-related noise would be contributed compared to existing conditions along Oleander Avenue between Ellsworth Street Project Driveway #6. Due to the reduced amount of vehicle traffic, the Reduced Project/Truck Trailer Storage Alternative would reduce but not avoid the Project's significant and unavoidable short-term transportation-related noise impact.

In conclusion, the proposed Project would result in significant and unavoidable noise impacts after mitigation. This alternative would result in fewer noise impacts; thus, the Project's noise impacts would be reduced.

L. Population and Housing

To implement either the proposed Project or this alternative, one mobile home would be removed from the Building D Site. Neither this alternative nor the proposed Project would displace substantial numbers of existing housing units, people, or create a demand for additional housing. Because this alternative would develop only the Building D Site portion of the property with an employment-generating use (a business park building), fewer employment opportunities would be created as compared to the Project, reducing the potential for indirect population growth. Less-than-significant impacts would occur under both the proposed Project or the Reduced Project/Truck Trailer Storage Alternative.

In conclusion, the proposed Project would result in less-than-significant population and housing impacts. This alternative would result in fewer population and housing impacts; thus, the Project's population and housing impacts would be reduced.

M. Public Services

The Reduced Project/Truck Trailer Storage Alternative would result in less building space on the Project site as compared to the proposed Project, which would result in less of a demand on fire protection services, sheriff's protection services, and less indirect demand for other services such as public schools, libraries, and health services. Compared to the proposed Project, demand would be lessened, although the Project would not result in any significant public service impacts that would be eliminated by the selection of this alternative. The Riverside County Fire Department (RCFD) does not have plans to construct a new fire station or physically expand fire protection facilities in the Project site's vicinity. Similarly, the Riverside County Sheriff's Department (RCSD) does not have plans to construct or expand sheriff facilities. Therefore, neither the Reduced Project/Truck Trailer Storage Alternative nor the proposed Project would have physical environmental effects on public service facilities. Increased demand is not an environmental effect under CEQA. Because no building construction would occur on the Building E Site, this alternative would contribute a lesser payment amount toward public services that are funded by the County's Development Impact Fee (DIF) Ordinance (Riverside County Ordinance No. 659). In addition, a lower fee payment would be made under the provisions of California Government Code §§ 65995.5-65998 to the Val Verde Unified School District (VVUSD).

In conclusion, the proposed Project would result in less-than-significant public services impacts. This alternative would result in fewer public services impacts; thus, the Project's public services impacts would be reduced.

N. Recreation

Neither the proposed Project nor the Reduced Project/Truck Trailer Storage Alternative would physically impact recreational facilities. Also, neither the proposed Project nor the Reduced Project/Truck Trailer Storage Alternative would preclude the County's ability to implement a community trail segment along Oleander Avenue, as called for by the MVAP. Less-than-significant impacts would occur under the proposed Project and this alternative.

In conclusion, the proposed Project would result in less-than-significant recreation impacts. This alternative would result in the same impacts; thus, the Project's less-than-significant recreation impacts would not be reduced or avoided.

O. Transportation

The Reduced Project/Truck Trailer Storage Alternative is estimated to generate approximately 1,181 actual vehicle trips on a daily basis (utilizing the ITE trips generation rates for high-cube warehouse uses, not adjusted for PCE). For comparison purposes, the proposed Project would generate approximately 2,115 actual vehicle trips on a daily basis (not adjusted for PCE). Although less traffic would be generated, the significant and unavoidable traffic impacts of the proposed Project would not be avoided through selection of the Reduced Project/Truck Trailer Storage Alternative. Also, because less building square footage would be developed, a lower monetary contribution would be made by

the Project Applicant to the Riverside County DIF program and the Transportation Uniform Mitigation Fee (TUMF) program to assist in the funding of needed local and regional circulation network improvements. Other fair share fee payments toward needed transportation improvements also would be less. Under both the proposed Project and this alternative, there would be significant and unavoidable cumulatively considerable effects to four (4) local roadway intersections and to state highway facilities under the jurisdiction of Caltrans.

In conclusion, the proposed Project would result in significant and unavoidable transportation and traffic impacts after mitigation. This alternative would result in fewer transportation and traffic impacts; thus, the Project's transportation and traffic impacts would be reduced.

P. *Utilities and Service Systems*

This alternative represents a 410,982 s.f. reduction in building space as compared to the proposed Project. Only nominal water demand for landscaping and electricity use for exterior lighting would be demanded by the truck trailer parking lot use on the Building E Site. As such, water demand, wastewater generation, electricity, natural gas, fuel use (energy) demand, and solid waste generation would be reduced overall, compared to the proposed Project. Nonetheless, the same types of connections to existing water, sewer and storm drainage systems would be required. Neither the proposed Project or the Reduced Project/Truck Trailer Storage Alternative would result in significant or cumulatively considerable impacts to utilities and service systems.

In conclusion, the proposed Project would result in less-than-significant utilities and service system impacts. This alternative would result in fewer utilities and service system impacts; thus, the Project's utilities and service system impacts would not be reduced.

Q. *Paleontological Resources*

Because the Reduced Project/Truck Trailer Storage Alternative would have the same ground-disturbing physical impacts and depth of grading as the proposed Project, impacts to paleontological resources would be identical as described in EIR Subsection 4.17, *Paleontological Resources.*

In conclusion, the proposed Project would result in less-than-significant paleontological resources impacts after mitigation. This alternative would result in the same paleontological resources impacts; thus, the Project's paleontological resources impacts would not be reduced or avoided.

R. *Conclusion*

Selection of the Reduced Project/Truck Trailer Storage Alternative would reduce, but not avoid the Project's significant unavoidable impacts to air quality, noise, and transportation. The Reduced Project/Truck Trailer Storage Alternative would result in similar but reduced impacts to aesthetics, agricultural and forestry resources, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, population and housing, public services, recreation, and utilities and service systems as compared to the proposed Project.

The Reduced Project/Truck Trailer Storage Alternative would meet most of the Project's objectives but to a lesser degree. Most particularly, the Reduced Project/Truck Trailer Storage Alternative would provide fewer economic opportunities, job growth, and generate less tax revenue for the County of Riverside. The selection of this alternative, while maximizing use of the site, would not maximize its development potential for business park space, filling the demand for logistics business park development in the SCAG region to a lesser extent than would the Project meet this demand. Thus, the regional demand for logistics buildings and the environmental effects associated with the development of these uses would very likely be displaced to other properties. Because this alternative would attain the basic objectives of the Project with reduced environmental impacts, it is considered to be environmentally superior to the proposed Project.

6.3.5 LARGER BUILDING ALTERNATIVE

Under this alternative, a 1,250,000 s.f. high cube warehouse building would be constructed on the Building D Site and the Building E Site, spanning the two areas. The segment of Ellsworth Street that segregates the two Sites would be vacated as a public right-of-way to allow for construction of the building. There would be 125 loading docks on the north side of the building and 125 loading docks on the south side of the building (150 total docks). This alternative was selected by the Lead Agency to compare the environmental effects of the proposed Project with an alternative that would allow for the construction of a larger building, with approximately the same amount of building space that would be provided by proposed Building D and Building E combined.

A. Aesthetics

The Project site does not contain any unique aesthetic resources, nor does it serve as a prominent scenic vista. Under the Larger Building Alternative, the visual character and quality of the site would be very similar to what would occur under the proposed Project, although loading docks would face the north property line and the south property line instead of the east and west property. In addition, the building that would be constructed under the Larger Building Alternative would have more mass and bulk and would have a greater potential to obstruct distant views. Because the segment of Ellsworth Street through the site would be eliminated under this alternative and covered with the center of a large building, there would be no public views from that area. The selection of this alternative would result in similar aesthetic effects associated with changes to existing visual quality, character, and the introduction of light and glare sources, but slightly more than would occur under the proposed Project because one large, more bulky-appearing building would be erected as compared to two smaller buildings as proposed by the Project. Under either this alternative or the proposed Project, aesthetic impacts would be less-than-significant.

In conclusion, the proposed Project would result in less-than-significant aesthetic impacts. This alternative would result in the similar aesthetic impacts; thus, the Project's less-than-significant aesthetic impacts would not be reduced or avoided.

B. *Agriculture and Forest Resources*

No forestry resources are located on the Project site or in the immediate vicinity of the Project site. Therefore, neither the proposed Project nor this alternative would impact forest resources.

Because no evidence exists that the Project site was ever used for agricultural use, the site is not surrounded by lands under active agricultural production, and the majority of the Project site is not suitable for productive farmland according to the land capability classification of the USDA Storie Index, it is highly unlikely that the Project site would ever be used for agricultural purposes under the Larger Building Alternative. For these reasons, impacts to agricultural resources would be the same under this alternative as they would be for the proposed Project. With mandatory compliance to Ordinance No. 625, as would be required by the County, impacts would be less than significant.

In conclusion, the proposed Project would result in less-than-significant agriculture impacts and no impacts to forest resources. This alternative would result in the same agriculture impacts and no forest resource impacts; thus, the Project's less-than-significant agriculture impacts would not be reduced or avoided.

C. *Air Quality*

Under this alternative, the construction schedule would be more intense than would occur under the proposed Project because the one larger building would result in the entire site being under simultaneous construction whereas the proposed Project would construct Building D and Building E serially. As such, total daily emissions during construction activities on the Project site would be increased as compared to the proposed Project's daily emissions reported in Subsection 4.3 of this EIR. It is likely that emissions of VOC, NOx, and particulate matter could not be feasibly mitigated under this alternative to a less-than-significant level. Therefore, construction-related air quality impacts would be increased under this alternative as compared to the proposed Project and would likely be significant and unavoidable.

Because the Larger Building Alternative would construct approximately the same amount of building space as proposed by the Project, operational-related air quality impacts would be nearly identical. The Project's significant air quality impacts would not be reduced or avoided and the Project's significant and unavoidable impacts associated with VOC and NOx emissions would remain at similar levels.

The Project would result in DPM exposure to the maximally exposed residential receiver, worker, and school child below the SCAQMD's significance threshold of 10 in one million. Thus, the Project's impacts associated with the exposure of sensitive receptors to substantial pollutant concentrations would be less than significant. Because the Larger Building Alternative would position loading docks and truck yards on the north and south sides of the building instead of on the east and west sides of the buildings as proposed by the Project, it is likely that DPM impacts would be increased under this alternative. With feasible restrictions placed on on-site operating equipment, it is unlikely that the

more severe impacts would exceed the SCAQMD's significance threshold of 10 in one million. Therefore, although impacts would be more severe under this alternative, both this alternative and the proposed Project would have less-than-significant impacts.

In conclusion, the proposed Project would result in significant and unavoidable air quality impacts with mitigation. This alternative would result in greater air quality impacts; thus, the Project's significant and unavoidable air quality impacts would be increased.

D. Biological Resources

Because the Larger Building Alternative would have the same ground-disturbing physical impacts as the proposed Project, impacts to biological resources would be identical as described in EIR Subsection 4.4, *Biological Resources.*

E. Cultural Resources

Because the Larger Building Alternative would have the same ground-disturbing physical impacts and depth of grading as the proposed Project, impacts to cultural resources would be identical as described in EIR Subsection 4.5, *Cultural Resources.*

F. Geology and Soils

Because the Larger Building Alternative would have the same ground-disturbing physical impacts and depth of grading as the proposed Project, impacts to geology and soils would be nearly identical to those described in EIR Subsection 4.6, *Geology and Soils*. However, more grading would likely be required under this alternative because the larger building would require a larger, flat development pad and grade could not be taken up inside the Project site along Ellsworth Street as is proposed by the Project's grading design. Less-than-significant impacts would occur under this alternative and under the proposed Project.

In conclusion, the proposed Project would result in less-than-significant geology and soils impacts. This alternative would result in the same geology and soils impacts; thus, the Project's geology and soils impacts would not be reduced or avoided.

G. Greenhouse Gas Emissions

Because the Larger Building Alternative would construct approximately the same amount of building space as proposed by the Project, operational-related GHG emissions would be nearly identical. Both the proposed Project and this alternative would result in less-than-significant GHG emission impacts, because development under either scenario would achieve at least 100 points (equivalent to an approximate 15% reduction in GHG emissions) on the Riverside County Climate Action Plan's (CAP's) Screening Tables; therefore, with mitigation that requires CAP compliance, neither the proposed Project or this alternative would conflict with the County of Riverside's CAP or with the

State's ability to achieve the reduction targets defined in Assembly Bill 32 (AB 32). Both the Project and this alternative would result in less-than-significant impacts.

In conclusion, the proposed Project would result in less-than-significant greenhouse gas emissions impacts with mitigation. This alternative would result in the same greenhouse gas emissions impacts; thus, the Project's greenhouse gas emissions impacts would not be reduced or avoided.

H. Hazards and Hazardous Materials

Because the Larger Building Alternative would attract the same types of building occupants as the Project, the potential for hazards and hazardous materials would be similar to the Project. Potential construction-related hazards and hazardous materials impacts would also be very similar. As with the proposed Project, mandatory compliance to federal, state, and local regulations during construction and long-term operation would ensure that the proposed development would not create a significant hazard to the environment due to routine transport, use, disposal, or upset of hazardous materials. Assuming mandatory compliance with standard ALUC conditions of approval, the building constructed under the Larger Building Alternative would have the same building height range as proposed by the Project, which was determined by the Riverside County Airport Land Use Commission (ALUC) to be consistent with the restrictions and requirements of the March ARB/IPA Compatibility Plan. Impacts would be less than significant under both the proposed Project and the Larger Building Alternative.

In conclusion, the proposed Project would result in less-than-significant hazards and hazardous materials impacts. This alternative would result in the same hazards and hazardous materials impacts; thus, the Project's hazards and hazardous materials impacts would not be reduced or avoided.

I. Hydrology and Water Quality

The Larger Building Alternative would have the same ground-disturbing physical impacts as the proposed Project, attract the same types of building occupants, and have a near-identical drainage system design. Neither the proposed Project or the Larger Building Alternative would result in substantial alterations to the drainage pattern of the site or would result in substantial erosion effects (with mandatory compliance with a Storm Water Pollution Prevention Plan (SWPPP). Accordingly, implementation of either the proposed Project or this alternative would result in less-than-significant impacts to existing drainage patterns. As with the proposed Project, this alternative would require compliance with a site-specific Water Quality Management Plan (WQMP) and its associated Best Management Practices (BMPs.) Therefore, implementation of this alternative would result in less-than-significant water quality impacts with compliance to a SWPPP and a site-specific WQMP and its associated BMPs and result in similar impacts as would the proposed Project.

In conclusion, the proposed Project would result in less-than-significant hydrology and water quality impacts. This alternative would result in the same hydrology and water quality impacts; thus, the Project's hydrology and water quality impacts would not be reduced or avoided.

J. Land Use and Planning

The Larger Building Alternative would require the same General Plan Amendment and Change of Zone application requests that are under consideration for the proposed Project and result in the development of the same business park use, although with a different building configuration. As such, the Larger Building Alternative would have the same significant and unavoidable land use and planning impacts as the proposed Project, as described in EIR Subsection 4.10, *Land Use and Planning.*

In conclusion, the proposed Project would result in significant and unavoidable land use and planning impacts. This alternative would result in the same land use and planning impacts; thus, the Project's land use and planning impacts would not be reduced or avoided.

K. Noise

As with the proposed Project, noise associated with this alternative would occur during near-term construction activities and under long-term operation. Because the Larger Building Alternative would construct approximately the same amount of building space as proposed by the Project and generate a similar amount of traffic, construction-related and operational-related noise impacts would be nearly identical to those described in EIR Subsection 4.11, *Noise.* Construction-related noise impacts would be less than significant with mitigation and operational-related transportation noise impacts would be significant and unavoidable along Oleander Avenue in the near term.

In conclusion, the proposed Project would result in significant and unavoidable noise impacts after mitigation. This alternative would result in the same noise impacts; thus, the Project's noise impacts would not be reduced or avoided.

L. Population and Housing

Because the Larger Building Alternative would construct approximately the same amount of building space as the proposed Project and generate the same amount of employment opportunity, less-than-significant population and housing impacts under this alternative would be similar to those described in EIR Subsection 4.12, *Population and Housing.*

In conclusion, the proposed Project would result in less-than-significant population and housing impacts. This alternative would result in the same population and housing impacts; thus, the Project's population and housing impacts would not be reduced or avoided.

M. Public Services

Because the Larger Building Alternative would construct approximately the same amount of building space as the proposed Project and thus place the same amount of demand on public service providers, under this alternative, impacts associated with public services would be the same as the proposed Project. As described in EIR Subsection 4.13, *Public Services,* increased demand is not an

environmental effect under CEQA, and no physical impacts to public service facilities would occur. Impacts would be less than significant.

In conclusion, the proposed Project would result in less-than-significant public services impacts. This alternative would result in the same public services impacts; thus, the Project's public services impacts would not be reduced or avoided.

N. Recreation

Neither the proposed Project nor the Larger Building Alternative would physically impact recreational facilities. Also, neither the proposed Project nor the Larger Building Alternative would preclude the County's ability to implement a community trail segment along Oleander Avenue, as called for by the MVAP. Thus, less-than-significant impacts would occur under the proposed Project and this alternative.

In conclusion, the proposed Project would result in less-than-significant recreation impacts. This alternative would result in the same recreation impacts; thus, the Project's recreation impacts would not be reduced or avoided.

O. Transportation

Because the Larger Building Alternative would construct approximately the same amount of building space as proposed by the Project, the same amount of traffic would be generated, and the transportation and traffic impacts would be nearly identical as presented in EIR Subsection 4.15, *Transportation*. Because the segment of Ellsworth Street that passes through the Project site would be vacated under this alternative, however, it is likely that traffic impacts would be increased due to this loss of a local road connection. Under both the proposed Project and this alternative, there would be significant and unavoidable cumulatively considerable effects to four (4) local roadway intersections and to state highway facilities under the jurisdiction of Caltrans.

In conclusion, the proposed Project would result in significant and unavoidable transportation and traffic impacts after mitigation. This alternative would result in the same transportation and traffic impacts; thus, the Project's noise impacts would not be reduced or avoided.

P. Utilities and Service Systems

Because the Larger Building Alternative would construct approximately the same amount of building space as proposed by the Project, the same amount of water demand, wastewater generation, electricity, natural gas, fuel use (energy) demand, and solid waste generation would occur as discussed in EIR Subsection 4.16, *Utilities and Service Systems*. Also, the same connections to existing water, sewer and storm drainage systems would be required. Neither the proposed Project nor the Larger Building Alternative would result in significant or cumulatively considerable impacts to utilities and service systems.

In conclusion, the proposed Project would result in less-than-significant utilities and service system impacts. This alternative would result in the same utilities and service system impacts; thus, the Project's utilities and service system impacts would not be reduced or avoided.

Q. *Paleontological Resources*

Because the Large Building Alternative would have the same ground-disturbing physical impacts and depth of grading as the proposed Project, impacts to paleontological resources would be identical as described in EIR Subsection 4.17, *Paleontological Resources.*

In conclusion, the proposed Project would result in less-than-significant paleontological resources impacts after mitigation. This alternative would result in the same paleontological resources impacts; thus, the Project's paleontological resources impacts would not be reduced or avoided.

R. *Conclusion*

Selection of the Larger Building Alternative would result in similar if not identical impacts as would occur under the proposed Project under all environmental topics with the exception of air quality and operational traffic. Construction-related air quality impacts would increase because more construction activity would occur on a daily basis. Operational-related DPM exposure to off-site populations may increase because the building's loading docks and truck courts would be located closer to sensitive receivers. Also, the loss of the Ellsworth Street segment through the center of the property would cause other local roads to carry a greater volume of traffic.

The Larger Building Alternative would meet all of the Project's objectives, but would not have any environmental advantages. Because this alternative would result in greater impacts to air quality and transportation, it is not considered to be environmentally superior to the proposed Project.

Table 6-1 Alternatives to the Proposed Project – Comparison of Environmental Impacts

Environmental Topic	Proposed Project Significance of Impacts After Mitigation	Level of Impact Compared to the Proposed Project				
		No Project/ No Development Alternative	No Project / Existing General Plan Designation Alternative	Building D Only Alternative – The Environ-mentally Superior Alternative	Reduced Project / Truck Trailer Storage Alternative	Larger Building Alternative
Aesthetics	Less-than-Significant Impacts	Avoided	Same	Reduced	Same	Same
Agriculture and Forest Resources	Less-than-Significant Impacts	Avoided	Same	Reduced	Same	Same
Air Quality	Significant and Unavoidable Impacts after Mitigation	Avoided	Increased	Reduced	Reduced	Increased
Biological Resources	Less-than-Significant Impacts with Mitigation	Avoided	Same	Reduced	Same	Same
Cultural Resources	Less-than-Significant Impacts with Mitigation	Avoided	Same	Reduced	Same	Same
Geology and Soils	Less-than-Significant Impacts	Avoided	Same	Reduced	Same	Same
Greenhouse Gas Emissions	Less-than-Significant Impacts with Mitigation	Avoided	Increased	Reduced	Reduced	Same
Hazards and Hazardous Materials	Less-than-Significant Impacts	Avoided	Same	Reduced	Same	Same
Hydrology and Water Quality	Less-than-Significant Impacts	Avoided	Same	Reduced	Same	Same

Land Use and Planning	Significant and Unavoidable Impacts after Mitigation	Avoided	Same	Same	Same	Same
Noise	Significant and Unavoidable Impacts after Mitigation	Avoided	Increased	Reduced	Reduced	Same
Population and Housing	Less-than-Significant Impacts	Same	Increased	Reduced	Reduced	Same
Public Services	Less-than-Significant Impacts	Avoided	Same	Reduced	Reduced	Same
Recreation	Less-than-Significant Impacts	Avoided	Same	Reduced	Reduced	Same
Transportation and Traffic	Significant and Unavoidable Impacts after Mitigation	Avoided	Increased	Reduced	Reduced	Same
Utilities and Service Systems	Less-than-Significant Impacts	Avoided	Increased	Reduced	Reduced	Same
Paleontological Resources	Less-than-Significant Impacts with Mitigation	Avoided	Same	Same	Same	Same
Objective A: To develop vacant or underutilized property in Mead Valley in close proximity to I-215 with business park warehouse buildings offering loading bays that can be used as part of the Southern California goods movement network		Not Met	Partially Met	Partially Met	Partially Met	Met
Objective B: To make efficient use of a property in Mead Valley by maximizing its buildout potential for employment-generating uses.		Not Met	Met	Not Met	Partially Met	Met
Objective C: To attract new employment-generating businesses along the I-215 corridor thereby growing the economy and providing a more equal jobs-housing balance in the Riverside County/Inland Empire area that will reduce the need for members of the local workforce to commute outside the area for employment.		Not Met	Met	Partially Met	Partially Met	Met
Objective D: To develop Class A business park warehouse buildings in Mead Valley that meet industry standards for modern, operational design criteria and can accommodate a wide variety of users.		Not Met	Partially Met	Partially Met	Partially Met	Met

Objective E: To develop vacant or underutilized property in Mead Valley with structures that have architectural design and operational characteristics that complement other new developments in the immediate vicinity.	Not Met	Met	Partially Met	Partially Met	Met
Objective F: To develop business park warehouse buildings that are economically competitive with similar buildings in the local area and region.	Not Met	Partially Met	Partially Met	Partially Met	Met

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7.1 PERSONS INVOLVED IN PREPARATION OF THIS EIR

7.1.1 COUNTY OF RIVERSIDE

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7.2 DOCUMENTS INCORPORATED BY REFERENCE IN THIS EIR

The following reports, studies, and supporting documentation were used in the preparation of this EIR and are incorporated by reference within this EIR. A copy of the following reports, studies, and supporting documentation is a matter of public record and is generally available to the public at the location listed.

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7.4 PERSONS CONSULTED DURING PREPARATION OF THIS EIR (WRITTEN AND VERBAL COMMUNICATION)

Lawe, Fire Captain Bill. CalFire/Riverside County Fire Department Strategic Planning Division. "Knox Business Center. Letter to T&B Planning, Inc. November 4, 2015.

Rico, Sergeant Ralph Rico. Perris Station Administration. "Request for Information regarding Sheriff Services for a Proposed Future Development." E-mail to T&B Planning, Inc. December 8, 2015.

7.5 DOCUMENTS APPENDED TO THIS EIR

The following reports, studies, and supporting documentation were used in preparing the Knox Business Park EIR and are bound separately as Technical Appendices. A copy of the Technical Appendices is available for review at the Riverside County Planning Department 4080 Lemon Street, Riverside, CA 92502.

Appendix A Initial Study for Knox Business Park, Notice of Preparation, and Written Comments on the NOP.

Appendix B1 Urban Crossroads, Inc. 2017a. *Knox Business Park Supplemental Air Quality Impact Analysis, Greenhouse Gas Analysis, & Mobile Source Health Risk Assessment.* February 9, 2017.

And

Urban Crossroads, Inc. 2016a. K*nox Business Park Air Quality Impact Analysis, County of Riverside*. August 5, 2016.

Appendix B2 Urban Crossroads, Inc. 2016b. *Knox Business Park Mobile Health Risk Assessment, County of Riverside.* January 28, 2016.

Appendix C1 Cadre Environmental (Cadre). 2015a. *Final Draft General MSHCP Habitat Assessment, Regulatory Constraints Analysis, and Consistency Analysis for the 37.08 Acre Decker Parcels I Project Site, Unincorporated Western Riverside County, California.* April 28, 2015.

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Appendix C4 Hernandez Environmental (HES) 2017b. *Habitat Assessment Update for Parcel Map No. 36962*. February 10, 2017.

Appendix C5 Hernandez Environmental Services (HES). 2015c. *Burrowing Owl Survey Report for the Decker Parcels II.* April 28, 2015.

Appendix C6 Hernandez Environmental (HES) 2017c. *Jurisdictional Delineation Update for Parcel Map No. 36962*. February 10, 2017.

Appendix C7 Hernandez Environmental Services (HES) 2016a. *Determination of Biologically Equivalent or Superior Preservation, Parcel Map No. 36950, Plot Plan No. 25838 (GPA 01151, EA 42802, CFG 06184, CZ 07872*). December 2015 (Revised July 2016).

Appendix C8 Hernandez Environmental Services (HES) 2017a. *Determination of Biologically Equivalent or Superior Preservation Parcel Map No. 36962, Plot Plan No. 25837 ((GPA 01151, EA 42802, CFG 06184, CZ 07872, LLA 05524).* December 2015 (Revised February 2017).

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Appendix D3 Brian F. Smith and Associates, Inc. (BFSA). 2015b. *Paleontological Resource Assessment for the Decker Parcels I Project.* April 28, 2015.

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Appendix E1 Matrix Geotechnical Consulting, Inc. (Matrix) 2014. *Geotechnical Investigation, Infiltration Study, and Rock Rippability Report*. September 30, 2014.

Appendix E2 Southern California Geotechnical (SoCalGeo). 2016a. *Change of Engineer of Record, Response Report and Plan Review, Building D*. June 16, 2016.

Appendix E3 Matrix Geotechnical Consulting, Inc. (Matrix). 2015. *Geotechnical Investigation and Rock Rippability Report*. February 19, 2015.

Appendix E4 Southern California Geotechnical (SoCalGeo). 2017a. *Geotechnical Report Update and Plan Review*.

And

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Appendix G1 Kennedy/Jenks Consultants (Kennedy/Jenks). 2014. *Decker Assemblage Phase I Environmental Site Assessment Unincorporated Riverside County, California*. August 18, 2014.

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Appendix N Written Correspondence